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MANAGEMENT

JUNE 1959
VOLUME 24 No. 6

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by Howard N. Feist, Jr.

Research In Executive Selection:
Some Needed Directions Of Effort
by Renato Tagiuri

The Economics Of Shorter Hours
by Clyde E. Dankert

The Common Sense Of Long Range Planning
by Eugene J. Benge

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S.A.M Constitution

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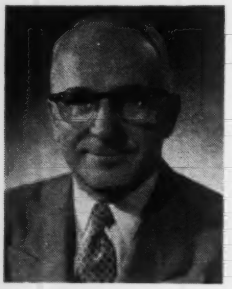


Telling Versus Selling

WHAT IS the most persistently troublesome area in the field of management internal relations today? My observation would be that today, tomorrow or any other time one of the correct answers to this question would be, the area of knowing how to secure the utmost effort from our associates.

"Communications", many persons say, is the real key to stimulating maximum effort at any level. This is undoubtedly true, but the point which underlies getting the necessary message through to the individual is the state of mind or preparation of readiness to open-mindedly receive the message. Unless the management message falls on willing ears, the result will be less than desired.

Since we are all "people", we each one respond in differing degree to a given stimulus. The manager who almost unconsciously recognizes the variation in individual responses and cashes in on them really profits from the effort.

My thesis is that individual reaction to the use of "telling" as a communications method used by business associates compared to "selling" as a method, is so varied that the difference between actual or passive resistance and enthusiastic acceptance can be the expected range of results from a specific communication effort.

For example, let us assume that a capable person with valuable experience in a given field of management is employed as an outside consultant for a definite period for a specific purpose. The management personnel in that situation have knowledge of the objective and the assumed qualifications of the consultant as well as the temporary nature of the assistance. This results in a state of mind or preparation of readiness to open-mindedly receive communication from the consultant which makes "telling" on the part of the consultant the simplest and easiest method of communicating.

On the other hand, put the same capable person with the same valuable experience in a given field of management on the payroll as a regular employee, and you will have introduced the ingredients which make it necessary for him to use "selling" as his most practicable method of communicating the same ideas to the same people. This results from the natural period of exposure and evaluation which is part of the integrating effort and experience any new employee has in fitting into any new management family.

"Telling" as a means of communication seems so much simpler and easier to use that we are all tempted to employ it to the exclusion of "selling". There are many occasions and situations where "selling" as a means of communication is not only simpler and easier but—in certain instances—the only practicable means by which open-minded acceptance of an idea can be achieved.

The wise and experienced manager comes to recognize and almost instinctively employ "telling" or "selling" as an internal management communications means depending on what effort he needs from whom. This is not to say we must cater to the whims of temperamental prima donnas, but rather we stand to profit in terms of voluntary extra effort and accomplishment by our associates through employing the stimulus that can be known and expected to produce the maximum personal result with the minimum personal effort in each individual case.

When, as a manager, you are about to "communicate" ideas and information to your business associates, your mental check list should contain the question—"do I tell or do I sell?".

Fred E. Harrell
National Treasurer
S.A.M

Diversification Requires Planning

by Howard N. Feist, Jr.

Management Consultant
Wellesley Hills, Mass.

IN THESE times of reduced earnings, profits frequently appear greener in other fields of industry. Pressured by stockholders who expect a greater return on their investment, inspired by success stories of managements who have pyramided individual companies into industrial empires during the past ten years, and being aware that their corporation has cash reserves and abundance of credit, management decides diversification could be the answer to many problems.

Unfortunately, most managements have had limited experience in carrying out a program of diversification, are limited in their knowledge of other industries, and plan to assume the burden of a diversification program on top of already heavy schedules of day-to-day administration. This is where trouble begins.

Announcement of the company's intention to diversify is frequently made at the annual meeting or in the annual report. This puts everyone on notice that the company is actively seeking to acquire other companies, product lines or is seeking product ideas to develop internally. Although this idea appeals to the stockholders, they have little concept of what is involved. Many think in terms of a major purchase for themselves such as a house. You look at a few and finally select one that looks attractive to you. Your lawyers see that everything is in order and provided you have the necessary cash, there is no problem. When you later want to change to another house you merely sell the one you have and buy another, repeating the process. If corporate diversification were as simple, there would be no huge losses in spinning off subsidiaries as was recently experienced by Penn-Texas management or the Bellanca Aircraft management. Mistakes can be very costly, and it is a wise management who determines to tread lightly.

Diversification takes time, and a year or more goes by with nothing to show in the way of a new product line or a new subsidiary. Today there are a number of companies who have served public notice one, two, or more years ago of their embarkation on a program of diversification, but to date nothing has happened. As time passes, pressure from stockholders increases and management appears incapable of carrying out the program promised.

The major weakness in most programs is lack of scientific approach to the problem of diversification. Armed with confidence in their own business abilities and knowledge of investment values, backed by their own accountants or auditors who can verify any figures submitted by a prospective seller, and backed by their own legal counsel who can button-up all legal angles, management is ready to look at any situation offered. Preliminary screening is frequently done by a key executive, sometimes the President or Treasurer, and then referred to an acquisition committee. The time of these men is valuable, and to adequately screen a company with a view to acquisition takes considerable time. It also frequently involves a learning process on the part of the acquisition committee as well as the key executive involved.

After a period of time, after screening many situations, some of which have been available for years and have been "shopped" with anyone who would take the trouble to look at them, management realizes that this is a time-consuming task to have piled on top of the regular work load. The key executive begins to believe the statement that for every 100 situations screened, perhaps ten or less will be of sufficient interest to carry beyond the initial screening. Of these ten, if he is lucky, he may find one that progresses to the point of actual negotiations. There is a story to the effect that two of the corporate empire builders met in a hotel one week-end, each with his own suitcase full of prospective acquisitions. They screened them together, each passing to the other the ones that he discarded and jointly discussing the ones each wanted for himself. And a year later not one of the companies screened that week-end had been acquired by either of the men.

Management profits from the screening experience and develops ideas of values, of their company's needs, and becomes increasingly adept at discarding situations after a surface glance points out some factor which management has from experience determined to be a disqualifying feature. For instance, after some looking, it may be decided to eliminate any company for acquisition purposes which has a record of losses. Automatically, management begins to develop criteria for screening diversification opportunities. But this is a negative approach, an approach developed through the waste of valuable time in

both the sense of the passage of time and the use of key executive time and talent. How much wiser it would be to start with a planned program right from the start, a positive approach to the problem of diversification.

A six step outline for a program of diversification is presented here. Management may conduct the program themselves or call for assistance from an outside organization experienced in this field. A number of consulting firms have rendered effective assistance to companies that undertook diversification. In either case, these steps should be followed and will yield untold savings in time, money, and frustrations along the path to expansion and growth through corporate acquisitions.

Six Step Program For Diversification

1. Determination of Diversification Objectives
2. Selection of Areas of Interest
3. Location of Diversification Opportunities within Prescribed Areas of Interest
4. Evaluation of Acquisition Opportunities
5. Conduct of Negotiations
6. Follow-up and Reappraisal

Step One—Determination of Diversification Objectives

Only by putting down on paper and carefully analyzing the reasoning behind the desire for diversification can management be assured the program is a good one. Management's background and philosophy plays an important part at this stage. Some men are unwilling to pay more than book value for any situation and seek via the diversification program to purchase companies with potential at far below their net worth with a view to rehabilitation of the company and improvement of the earnings record. Others take just the opposite tack and seek excellent earnings with a view to expanding the company and broadening the base of the earnings. Sometimes by analyzing one's own industry and company, diversification is really not the goal of management but rather a symptom of another corporate problem.

Any program of diversification should commence with a self-analysis on the part of the company seeking to diversify. This includes a careful appraisal of one's own industry prospects, management abilities, and overall corporate strengths and weaknesses. From such an appraisal, it is possible to develop some functional needs which will be satisfied through diversification. At this stage the timing and importance of diversification can be appraised. Companies which purchase going concerns at the peak of profits and operations only to be caught in the whipsaw of the business cycle learn the importance of timing the hard way.

At this point, consideration is given to the company's management experience and abilities, basically a strong merchandising management or a strong production management, etc. The marketing abilities, production abilities, financial background and strength, research and development experience, plant and facilities, labor market, and other intangibles are all fed into the diversification mix and from the conglomeration of factors considered is drawn up a set of objectives which form the basis for diversification and confirm the need for such a move.

Step Two — Selection of Areas of Interest

With the objectives clearly defined, management is now ready to explore the broad areas of industry with a view towards satisfaction of these objectives. At this point, unless management has had broad experience in many industries, assistance is frequently required. However, the lack of knowledge can be overcome through careful and detailed industry analysis and study. From the whole range of industries, those industries are selected which appear to have surface interest from the standpoint of satisfying the objectives set forth in step one. For instance, a textile machinery firm strong in production know-how might want to look carefully at the machine tool industry.

Within the framework of the industry selected, product areas are next given consideration. Following the textile machinery manufacturer cited above, a product might be sought with low or medium volume runs, growth prospects, and stability of market. At this point, specific product areas are selected as being highly desirable for consideration.

Step Three—Location of Diversification Opportunities Within Prescribed Areas of Interest

Now is the time to contact bankers, brokers, stockholders, directors, and others in a position to direct you to concerns which are available within the prescribed areas of interest. Having defined the areas of interest saves management the time and effort involved in looking at a lot of situations which are outside the areas of interest. It also prevents management from purchasing a company which looks like too good a buy or too excellent an opportunity to pass even if it does not satisfy the objectives of the diversification program.

A more significant advantage to channeling the approach to carefully selected product areas is that more situations are presented than would be presented if management merely made a general broadcast of interest in diversification. Many closely held family concerns operating profitably could benefit from a sale or stock transfer from a tax standpoint, but the principals are reluctant to put their companies up for sale because of the effects on the business. When they are told of a company interested in their company, they are willing to consider a proposal which might work to mutual advantage even though they would be unwilling to offer their company to another corporation embarking on a general program of diversification.

Step Four—Evaluation of Acquisition Opportunities

This is a broad area and one in which management perhaps has the greatest capability as management knows values and has its own ideas of appraisal. Stability of earnings, importance of management know-how and contribution to earnings, book value, earnings in relation to investment, technological factors, growth trends, competition, reasons for sale, etc. are all among the factors considered in making an appraisal of a prospective acquisition, in addition to its meeting the diversification objectives laid out in step one.

A MISTAKE or misjudgment at this point can be costly as once investment is made, it is impossible to get it back to put into a more promising situation that might come along next month. An axiom to remember is that an opportunity missed is not an out-of-pocket loss whereas an acquisition poorly evaluated can become a loss.

Timing in relation to value is an important consideration at this point. A company which meets all of the requirements may be too high priced to represent a good investment and the price may be reduced if economic conditions indicate a change in level of industry operations and earnings. The stock market gives full credence to this

statement. Growth stocks should not be purchased at prices which already include a fat premium for growth not yet realized. Neither should a growth company be purchased for a price which includes a premium for growth which may never be attained or may be attained only at great expense of effort and investment on the part of the purchasing management.

Step Five — Conduct of Negotiations

With the evaluation completed and the desire to acquire the company established, the next step is to develop a plan of acquisition which will be of mutual advantage to both parties. This may take many forms including employment contracts, exchange of stock, cash, royalty arrangements, commission arrangements, sale of assets, etc. An experienced law firm with tax experts is of major importance at this point.

Step Six—Follow-up and Reappraisal

If for some reason negotiations fail to materialize in a sale for reason of price disagreement or otherwise, the failure should be reviewed to determine the mistake if one was made. In the event the concern is not sold to someone else, there is always the possibility of purchasing it at a later date. In the event it is sold to another party, compare your plans with their operation of the concern and attempt to evaluate your own judgement. Would you have done as well as the other buyer and how well did the other buyer do? One learns from experience and if you can profit from some one else's mistake at his expense, so much the better. If you made a judgment which time proves erroneous, it is best to learn and profit from it through follow-up and re-appraisal of events leading to the mistake.

By adequately planning the diversification program right from the start, management will find that time spent in defining objectives and in delineating areas of interest will save countless hours of undirected discussion and time, time which would otherwise be wasted in gaining a feel for diversification programming. Likewise, such careful planning will minimize mistakes and will afford greater acquisition opportunities. Only through careful planning can management reap the benefits of a diversification program and find the greener profits in other fields of industry. The six steps outlined above will serve as a starting point for any management contemplating such a move. ■

A Little More

by F. W. Hornbruck, Jr.

Vice President, Landers Frary & Clark
New Britain, Connecticut

SOME YEARS AGO a good friend shared with me an idea that he, as a young man, had received from his father. It was "Always give a little more than they pay for and you will never have to worry about a job."

The "little more" can take form in many ways. It has always seemed to me that participation in the activities of S.A.M was one of the ways. Perhaps, it is the way to give a "lot more".

Events are happening fast in the industrial world today. Your company needs men who are ahead of the times. It needs new ideas and, equally important, it needs people who can build those ideas into results. Creativity, timeliness and effectiveness are of the essence.

S.A.M means meeting and working with people. People who have management problems and thinking and experiences to share. This is participation in a healthy climate that is conducive to developing new and better ways of managing. An atmosphere where sound thinking and imagineering are stimulated. Where the new way is encouraged and tried and perfected. Where satisfaction comes from achieving and Achieving and ACHIEVING! Where past accomplishment serves only as a bench mark with which to measure progress.

The Olympic Champion trains, the Concert Soloist practices, the Oscar Winner rehearses, and so must industrial managers and engineers work to seek perfection. SAM is the practice field, the scrimmage game, the training place where the old fundamentals are learned and the new techniques are tested and perfected. Active participation in SAM will help you acquire the judgment that comes from experience, the maturity that emanates from handling responsibility, the stimulation that is sparked by working with successful people, the persuasiveness that is gained by leading people toward constructive goals, the confidence that comes from turning ideas into accomplishments.

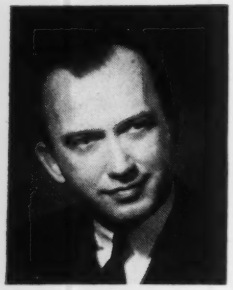
These are the extras—the "little more"—that S.A.M helps you bring to your job.

Essentially, then, S.A.M is devoted to developing talent. Some people have a talent for managing, for leading, for organizing. The fact that they have an interest and some natural ability in this direction is only a beginning. The talent must be developed. Sometimes the talent is developed by chance or by circumstance, but for most it takes high concentration and hours of hard work to achieve the degree of competence wanted. From my observations, the people who develop their talent to the fullest, want more than anything to do just that. They are people with an objective. Their objective is not money, nor fame, nor power, but rather simply to be the best of the best in the profession of management.

A good education is the foundation upon which to perfect a talent. The way a person grasps the opportunities for practicing the talent that are present in his job, is most important. Reading management material is helpful as a short-cut—a way to profit from the thinking and experiences of others. Another facet to be polished in order to establish a well balanced talent for management is to discuss management problems and their solutions with people who have successfully met the challenge. S.A.M's single purpose is to help you develop your talent for management. As this objective is attained, the stated goal to Advance Management will follow as readily as nature fills a vacuum.

S.A.M. brings together the experts and the neophytes. S.A.M is the question, the answer, the discussion, the demonstration, the alternative, the new approach, the analysis, the synthesis. This is S.A.M dynamically striving to help people develop their talents—and more important making it impossible for them to outlive their talents. This significant feature of S.A.M is important for it helps young men mature while keeping the elderstatesmen young in mind and spirit. We owe it to ourselves and to our profession to participate enthusiastically in this productive process of shaping leaders of management.

Further, S.A.M is the committee, the meeting, the program, the conference, the new member, the profit, the chairmanship, the officership—locally and nationally. Here is the on-the-job opportunity for young men to develop managerial talents. Here is the investment with the good risk. The rewards can be small or large, the return is what you make it. The philosopher's statement "The harder I work, the luckier I get" applies in full measure to active S.A.M members.



Total Training For Top Executive Pressures

by Edward L. Adams, Jr.

Psychologist
Rohrer, Hibler
and Replogle

ALREADY intense, pressure in the lives of topflight American businessmen is likely to increase as the structure and tools of business become more complex. How far can top executives be stretched? Has anyone given much attention to methods for increasing the resilience of executives, aside from developing better tranquilizers and ulcer treatments? Is present training for would-be executives better suited for developing the "also ran" executive or the executive who has the potential to carry top responsibilities?

Until recently many people have regarded a business career as the last foothold for the individual who for one reason or another had no formal training in the field in which he hoped to succeed. Almost anyone, it was believed, could reach the top if he just got on the bottom rung of the ladder and kept trying hard enough. Scientific management techniques and competition from students of these have made it much harder for the young man of today to progress satisfactorily unless he has experienced a certain amount of formal training.

Recognition of the need for training in the fundamentals of modern business management has resulted in a tremendous growth within recent years of many types of training opportunities. Degree programs in colleges of business administration, correspondence study courses, short refresher courses for active executives and many other programs have developed rapidly in response to the recognized need for training in modern management methods.

Programs such as these have attempted to prepare the *mind* of the would-be executive to deal more effectively with his business problems. They are meeting an important need that will surely become more acute as the tools and practices of business management become more intricate.

But what is being done in the meantime to train the rest of the embryonic executive to meet the growing pressures of top management while his mind is being educated in modern theory and techniques? How are his emotions, attitudes and habit patterns being prepared to meet the stresses that lie ahead? Are we making any effort to ascertain in advance which young men are best equipped in non-intellectual characteristics for business success and for profiting from intensive training?

In two other fields of human endeavor where the responsibilities are heavy and where the demands upon the individual in terms of self-discipline and dedication to a cause are rigorous, the experience of centuries has dictated a more complete training experience for the individual. These fields are officer training in the military services and priesthood training in the Roman Catholic Church. In neither of these is the training effort concerned only with the intellectual education of the individual. In both cases it is at least implicitly recognized that the attitudes and emotional reactions of the individual must also be prepared for the instinctive responses and self-sacrifices that his future career probably will demand of him.

Apparently it has been found in the training of both military officers and priests that a complete educational program in which the entire life of the student is closely observed and controlled is most likely to prepare him to meet future pressures. Such total educational experiences also serve to identify and to divert into more suitable fields individuals who appear unable to adapt themselves to the pressures of such training.

It should be noted that in both officer and priesthood training two conditions prevail:

1. *Individuals who enter such training know as well as they can at their age, what their choice of a career involves in sacrifices and satisfactions, and they have voluntarily accepted the rigors of the required training in order to satisfy certain personal values.*
2. *The training program is not for all or even for a tenth of those who seek it. Instead it is for an elite group who have been selected with the greatest possible care from many times their number of eager applicants.*

It is not unreasonable to compare the self-discipline demanded of military officers and priests with the self-discipline that their position requires of suc-

cessful top executives and of those aspiring to such positions in large, fast-moving corporations. It is questionable, however, whether the training needs of those upon whom we must depend for top business leadership are being met as realistically as are the training needs of those in the other two fields.

Top executives in dynamic organizations have to be dedicated men. The demands upon their time, their health, their emotional control and their family life are intense. Too often we witness the sad spectacle of the top executive who is unwittingly destroying his family, his organization or even himself in his struggle to cope with pressures for which he is inadequately prepared. Less dramatic evidences of inadequate preparation for top executive pressures are commonplace.

MANY of the most successful business leaders have indicated that the executive must love his work in order to succeed, let alone survive under the pace involved. But to love the requirements of top management positions the executive must have developed somewhere along the line personal values and action patterns that are different from those of the average man.

Look around you—not just at the average man but at the majority of middle management men in any organization. As you know them, are most of these the purposeful, intense individuals who are dedicated to finding new and better ideas, ways of doing things, means for controlling all manner of things including themselves? Are they the men who never seem to recognize fatigue or the possibility of other interests as long as there is a challenge to be met, an achievement to be made? Or are most of them men who are capable and conscientious, but who are really less concerned with changing prevailing conditions than they are with being at home with families, talking baseball, playing golf, etc.?

Even among top executives, many are hopelessly off the pace set by the leaders. This condition causes the apparent paradox in which we hear constant clamor for management talent at the same time a recession is depositing many executives "on the street."

The ability to manage well today's tremendously complicated big business is a talent that can no longer be developed effectively by random methods or by theoretical training alone. In virtually every other competitive field people who have been concerned with producing winners have sooner or later reached two conclusions. These have indicated first that the best basic material must be selected originally, and second, that purposeful training must be started very early. We have generally applied these principles with far greater alacrity to activities such as the training of racing horses and hunting dogs than we have to human efforts. Yet the same basic principles apply, and competitive pressures in an increasingly complex society ultimately will force us, I believe, to change our thinking and practice about the selection and training of future executives.

Needed today among our colleges of business administration is a total training experience designed to prepare a highly select group of young men for more rapid and certain development into positions of top management responsibility. Such a program would be designed to train the emotional and habit responses of the individual as well as his intellect. It would be highly selective and competitive from start to finish. Insofar as possible, conditions similar to those encountered under a wide variety of business pressures would be simulated. The student's decisions, actions and manner of relating himself to other people would be under continual review and modification. Selection for such a program would be based on a combination of mental, physical and psychological characteristics and on evidence of accomplishment and leadership in the individual's life to date. Continual evaluation would result in the elimination from the program of those considered unsuited for the rigors of top management responsibilities and for the frustrations encountered along the way.

This type of training experience would be designed for students who have already had two years at the college level in which to demonstrate achievement, potential and purposefulness. It would be limited to those who already have enough built-in drive to be willing to forego a more leisurely and comfortable college existence in order to expedite their progress toward significant achievements.

As the writer envisages such a program, students would live and work together for three eleven-month years, except during planned work experiences away from the training center. At the successful completion of the three-year-period, students would be awarded the Master of Business Administration degree and an opportunity for placement among companies that need young men who can grow into major management responsibilities in from five to fifteen years. The training center might well maintain a continuing career counseling service for its graduates so that neither individual shortcomings nor company inertia would prevent appropriate progress.

Why is such a training experience needed? Primarily because current graduates of our colleges and universities have much more difficulty than they should have in adjusting themselves efficiently to the practical realities of business life and in translating their ability and theoretical training into effective action in such settings. Characteristically, they overvalue their ability to make immediate contributions, while naively failing to identify and deal effectively with strong and complex forces of resistance.

Even in companies with attractive training programs designed to prepare a select group of young men for minor management positions, a great many able trainees lose their perspective and drift into negative responses to frustrating conditions instead of devising means for coping constructively with such conditions. They may be brilliant in solving complex theoretical problems, but when it comes to putting their solutions into effect, they are green amateurs, and the "old pros" often take malicious delight in blocking their efforts until they either give up or blow up. Unable to find direct expression and recognition for their abilities, trainees frequently withdraw into cynicism or into the role of self-conscious staff assistants to men who have been more successful in learning how to make things happen.

THIS represents waste—waste of critically needed human ability. The college graduate who has been allowed to drift through theoretical training in management methods without experiencing simulated organizational infighting, a week of eighteen-hour-a-day pressures, a superior who inwardly fears his subordinates—is as poorly prepared for the stresses ahead of him as the infantry lieutenant who has studied only the characteristics of weapons in a textbook. The army has learned to provide battle indoctrination experiences for its officer candidates, and similar realism needs to be built into the training experiences of future executives if they are to learn how to deal effectively with inevitable

frustrations without losing the confidence and enthusiasm that always distinguish the best leaders in any field.

Some of this country's best-known schools of business administration and their post-graduate products have acquired mixed reputations in the private opinions of many chief executives. The graduates of these schools are admired for their intelligence, poise and for their grasp of modern management methods. But when it comes to "getting a job done," to adjusting theory or refined methods to awkward emergencies, and to "selling" their wisdom and insights to less intelligent and well-trained individuals, these graduates are typically less effective and less highly regarded.

Not a few chief executives have developed unfortunate stereotypes about these young men which they express when they refer to them as being "staffy," "all vine and no potatoes," etc. Once typed, it is difficult and sometimes impossible to change the role they have earned inadvertently in an organization. It is also difficult to readjust their own responses from the problem-solving habits of the graduate seminar to the exigencies of interdepartmental warfare.

The wasteful result of this situation is that too few of those with the best ability and training get into positions of responsibility where they can make really constructive use of their abilities. They are often poorly equipped to compete with less able but more experienced and aggressive individuals at the lower levels of management, and they either withdraw or are sidelined from the main channels of influence and advancement into staff activities. In the staff role they not infrequently find themselves still trying to provide "logical" solutions for the same men who beat them out of the management race because of their ability to resist logic when it blocked their purposes.

To be sure, there are bright exceptions to this picture, but on the whole there is ample cause to question the completeness of a system of education that seemingly so often defeats its own objectives. Present college programs of business administration are undoubtedly suitable for training above average young men who seek only to achieve "respectable" niches in business organization. But is the right kind of education being provided for the young man who thirsts for positions of major responsibility in fast-moving organizations, and whose combined characteristics give him great potential for significant business leadership? Is enough care being given to the early identification and selection of such individuals in the first place? And in the second place, are we being both realistic and rigorous in the kind of training program we design for them?

The increasing impact of national and world problems on the existence and well-being of every business is adding new dimensions of stress to the lives of chief executive officers. It will take more basic ability, better training and, above all, firmer personal integration to be able to meet and resolve successfully business problems of the future than it has taken in the past. There can be no question about this. Fortunately, we are tapping our national brain power more efficiently than in the past as a greater proportion of those with the requisite ability find ways to secure higher education. We may well need to give more attention, however, to the selection and training of the individual with exceptional leadership potential. A training program designed specifically for such individuals would give substance to current talk about "professional" managers. In the meantime, the young man with exceptional potential for business leadership may appraise the situation shrewdly and decide to apply his abilities toward some other professional objective where more systematic and rigorous training is both provided and rewarded.

A great opportunity exists for business leaders and educators to join in the design and creation of a training program that will attract a greater number of young men with marked leadership potential and keep them from drifting away from business and into more professionally established fields. Such a training program would conserve a greater proportion of our best human resources for business leadership. It could also build more certain qualities of strength into our business leaders of tomorrow. ■

> **WHAT WE hope is that engineers will become more rather than less involved with labor problems and that they should come to occupy positions of responsibility in this field. The industrial engineering background with its mental discipline, if reinforced with experience and understanding in the social and human problems, can make a fine combination. We would hope, too, that in the textbooks dealing with industrial engineering problems more emphasis would be given to the social and human problems and the necessity of winning the cooperation of labor on the basis of fair play and justice.**
>
> **Certainly we all know that lying ahead of us is the possibility of a world of great abundance with a high standard for all of our citizens. We have the possibility of so using our great economic abundance to help other nations to raise their living standards.**
>
> **Engineers are making great advances in improving the methods of production. There is boldness, originality and progressive thinking going into the development of the automation processes.**
>
> **What we ask for is the same boldness, thinking and originality in the labor field. In our judgment, the man who solves those human, social and economic problems will have a place in history just as great as those who developed the marvels of production.**
>
> **David Lasser**
> ***"Labor Looks At Industrial Engineering"***

Research In Executive Selection: Some Needed Directions Of Effort

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THAT the question of *what needs to be done* in research on executive selection has no simple answer, is clearly shown by a recent survey on research on personnel problems (Goode, 1958). Goode asked some of the most competent persons in this field what directions they thought *future* research efforts should take. He found that practically every suggestion made corresponded to something *already* being done somewhere in the country. This finding, coupled with the general dissatisfaction with current work expressed by those consulted, shows that a more gratifying state of affairs is not likely to arise from the store of *present* work and plans. This realization can lead in two directions. One is pessimism, and this is of little value, since in spite of everything, research in selection is a practical problem that must be contended with. The other is thoughtful stock-taking and patient analysis of what is needed and of where productive activities may lie. This paper is an attempt in the latter direction. It contains the writer's opinions as to what needs to be done in *research* on executive selection, that has, at the same time, a measure of practicability.

Need for a Suitable Way of Thinking about the Problem

The result of most studies and skillful observations favor the view that, in general, the performance of an individual depends upon what the *man* is, what the *job* is, and what the *situation* is. Let us now consider tools available for describing man, job, and situation.

As far as the description of the *man* himself is concerned, typically, the terminology is drawn from personality theories that are more useful for making sense of behavior we have already observed than for predicting what will happen. And all problems of selection, especially those involving long range estimates of a man's eventual potentiality, involve prediction. Thus we need a way of describing people that permits us to check later on how correct were our predictions. In addition, it is difficult to tell from current personality theories exactly *what* to observe and *what* to expect when it comes down to actual behavior. Finally, the "range" of these theories is insufficient. While, in principle, some of them span person. job and situation, in fact, the parts relevant to the latter two are insufficiently developed. They take into account the environmental situation, but not in a major and direct way. It would be helpful, therefore, if such theories were further elaborated to encompass the milieu as well as the man. It is conceivable that a personality theory, especially adapted to the study of persons functioning in organizations may have to be developed.

Besides describing the man in terms of an appropriate terminology, we must be able to describe and classify the *job*. Though many job analyses have been attempted, there is no satisfactory systematic scheme available that links the characteristics of a job to those required of people who are to do the work. What Horst said in 1941 still holds:

There has been a tremendous gap between the terminology of job description and the terminology of the description of human abilities. Even in some of the best work thus far done in the field of job analysis, the linking of aspects of the job and characteristics needed for success has been largely unsystematic. The job analyst studies the job and makes a detailed description of its various aspects; and the detailed description is then examined in order to decide what are the probable characteristics required for success on the job. A large gap has to be jumped in the latter operation. (*Horst*, 1941, *p.* 121, *Italics added*).

ANOTHER chronic difficulty with selection of personnel for complex occupations — such as executive positions — has been the lack of good ways of describing the *situation* in which the person is to function. The same person, with the same duties, will perform differently in different situations. A man in a specific *job* may, for example, be too good given the *situation*. Being very "quick," he may see things more sharply, swiftly and correctly than his superiors. But his behavior may well be misunderstood, and he may be regarded as impulsive and seen as a threat. Lack of experience keeps him from applying his brightness with caution, and he is judged adversely. Were he surrounded by different people

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— a different *situation* — the opposite might happen. Most work in executive selection inevitably has to consider the situation; yet, formal steps are seldom taken to meet the need for a *psychologically useful* way of talking about types of administrative environment and jobs. Some may object to the distinction between *job* and *situation*. The burden of proof is that failure to make this distinction, fuzzy as it may be, has definitely caused confusion. The odds are that its explicit introduction in our thinking may help clarify matters.

The *development of a way of talking about the person-job-situation* interaction then represents a major need for research and effort. This is a tall order indeed, but except for purposes of fragmentary research, it cannot be sidestepped. The present author is not clear as to what this scheme would be like. One thing, however, seems certain—the language developed must refer to the *transactions* of man and job, man and environment, job and environment.

The importance of developing a good language for discussing this complex of things cannot be overestimated. An explicitly stated frame of reference is essential if research is to yield cumulative results. Communication becomes more accurate and errors of conceptualization can be discovered if such language is evolved. Had we worked more in this direction in the past, theoretical contributions and probably empirical ones, might have been greater by now.

The development of a scheme for handling the person-job-situation interaction would have important consequences. Its existence as a tool for *thinking about* this complex might *indirectly* help to screen the types of persons who seek certain forms of training or job. By putting a person in a position to think more systematically about the nature of administrative functioning, it would enable him to assess more effectively whether or not this is what he is suited for and what he wants. To the young man who is considering a life career this way of thinking, used either directly or indirectly through a counsellor, should be of help in choosing among alternative opportunities. Thus many students who enter training in administration, and later regret it, might avoid an unfortunate choice. This might also have the effect of breaking down certain preconceptions about executive careers and arouse the interest of potentially "good" individuals who now tend to stay away from professional administration. The professional student *already* in the field of administration would be helped in identifying the forms of executive endeavor and milieu that best suit him. Again, the young executive would be aided in understanding the complexity of his work and in testing the compatibility between the job and himself. Finally, the more mature man should find this mode of thinking useful in choosing and wisely developing his apprentices. Similarly, the effectiveness and reliability of those professionally concerned with selection might increase.

In short, then, urgent and almost certainly profitable would be the further analysis of executive jobs and their milieu, the development of a useful language for talking about the person-job-situation interaction, the education of practitioners in the language, concepts, needs, limitations and characteristics of executive selection.

If we are right, it is probable that, indirectly — by increasing our understanding of the problem of executive functions and careers — we would reach some of the goals of improved selection that could not be achieved in a technologically more direct manner. In many ways, development of satisfactory criteria of executive performance — our next topic — has to wait for progress in the areas of *man-job-situation description*.

Need for Proper Allocation of Responsibility in the Development of Criteria

Much selection research takes the form of devising new screening "tests" and improving old ones. Advances in measurement theory and test construction are important, but their usefulness is relative when the *criteria* are poor, as they are in executive selection. Criteria are the more or less arbitrary standards against which "success" is measured. It is interesting that in many cases, research workers in personnel selection face fully the importance of a good criterion only when they have to search for the reasons underlying their disappointing results. This is often due to their assumption that good criteria can be found during the progress of the investigation itself, as well as to time and other pressures put upon them by consumers of this type of research. The latter are not often aware of the crucial function of criterion development and of their own essential role and responsibility in this phase of the work. This last point is illustrated by a current study in the selection of medical school students. Kelly points out that his research group is still struggling with the problem of persuading "members of the admissions committee to assist in the search for criteria other than medical school grades" (1957, p. 5). Note that in comparison to business administration, the medical profession has the advantages of a long tradition of standards, such as examinations for license to practice, as well as for admission to professional boards and societies. The National Medical Board Examination provides a standard of a type inconceivable in the field of administration.

To obtain a satisfactory criterion is at once the most fundamental and most difficult aspect of any selection problem. At the present time, some of the more thoughtful people in this area have been giving much attention to this issue, both in general and in specific situations. Dr. Ward's and Dr. Hemphill's work at E.T.S. is an example (1957). These investigators have had to conclude, after careful analysis, that there exist no satisfactory criteria of executive performance.

Criteria are, indeed, hard to develop. There are certain issues about criteria, however, that can profitably be discussed here. Criteria serve to estimate the *utility* of a selection program or device. The process of assessing the *utility* is a statistical one. As is often the case mathematical and quantitative treatments create the illusion of *objectivity*. However, the statistics and mathematics involved imply assumptions that are not objective. They contain, inevitably, value judgments of what is desirable. Several millenia of thought have shown that there is no way of determining objectively the "goodness" of value judgments. Thus criteria, in spite of their quantitative implications, are based on arbitrary evaluations. In addition, it is clear that criteria vary with the situation and the times. So we have to conclude that, while research in selection cannot proceed without criteria, criteria of such complex behavior as executive function are rather ephemeral and somewhat arbitrary things.

One can say of the development of criteria for executive selection what Girshick writes about decision theory:

> *. . . decision theory demands a great deal of the decision maker . . . it is impossible to tell a person what is an optimal way for him to behave if he is unable to formulate clearly what he is after. Decision theory acts as a gad-*

fly to the research worker. It says to him: You cannot solve your problem unless you more clearly define your goals and the consequences of your decisions. (1954, p. 463).

Yet, it is a well-known fact that it is very difficult to make explicit the assumptions and notions that govern our actions. The same difficulty has been found at the level of organizational behavior: it is very hard and painful to have people face the assumptions on the basis of which they function in their everyday work. It is, at the same time, true that such making explicit of things, if carried out successfully, more often than not is experienced as a great personal gain. But most attempts fail and the people involved in the operation discover that this is one of the best ways to lose friends and *un*influence people. This experience is familiar to many consultants, certainly to people working in the area of selection. Operations research, the "new science," has also run smack into this difficulty, and it may be interesting, by the way of a comparison, to see what one of its exponents has to say in this connection:

When business firms call upon these new technical consulting outfits, they should be forewarned that they are bound to be asked some embarrassing questions. If a scientist is to set up a linear programming model or some other model of your operations and if he is an honest and competent man, he will probably force you to formulate what your objectives ought to be more explicitly and rigorously than you usually do. He cannot be content with completely unhelpful vague answers like "We want to build the best plant." His next question will have to be "What precisely do you mean by 'best'?" And the firm had better be prepared to give this question a lot of thoughtful consideration in advance. After all, if we are unclear about what it is we are really seeking, no advances in analytic technique whatsoever are going to help us very much. (Hoag, 1957, pp. 166).

The implication of all this is that design of research on identification of executive talent needs the participation of people other than psychologists and personnel experts. It requires the collaboration of those who know about administration, and who have ideas about the future. These experts have to spell out what *kinds* of administrative roles they foresee will exist, and what kinds of men will be needed. We use *kinds* in the plural form for men can be good in *different ways:* there are different kinds of "good men." This fact should be more explicitly stated, elaborated, and introduced at the point of selection. For there is no doubt that people can successfully cope with a situation in many different ways. In terms of personality, this means that a variety of types of persons may fit well into a situation, thus making the task of selection more complex. The classic *adagio* of selection — the square peg in the square hole — is too simple an analogy. If, more realistically, success if equated with *plugging the hole effectively*, then the question should be what kinds of pegs will do and what kinds will not. There is risk, of course, in predicting the future. But there is, really, no alternative. For whether predictions are made explicit or not, any action, including inaction, implies prediction. Explicitly planned action, however, has advantages. Leadership will go to those groups that have put their effort on the best set of risks. What these are is not *primarily* in the psychologists' area of competence to forecast.

In sum, we cannot hope to do good selection research without first spending a lot of time and effort on criteria. The research consumers and administrators must become very clear about this, and about the fact that the development of criteria cannot be done without their own active participation.

> *To me, automation is merely something that increases people's productive capacities. As we increase people's productive capacities by these devices that have been lumped under the heading of automation, we increase the essentiality of people and raise the level of their required skills.*
>
> **Samuel L. H. Burk**
> *"Principles for Measuring the Employee Relations Function."*

Need for Informed Management

There are some other directions in which progress could be made that would then lead to technical advances in executive selection. Consider, for example, some of the obstacles frequently encountered in our work. It often occurs in research and in the practice of selection that psychologist and management are not in good communication. It is necessary to look into the nature of this difficulty if it is to be dealt with, and this is very important since good understanding on the part of management is essential if we are to enlist their badly needed full cooperation. There is, of course, the usual semantic difficulty separating people in different disciplines. The present case, however, is aggravated by the fact that, by and large, psychologists and laymen use the same terminology to describe people, with, alas, somewhat different meanings. Because people are constantly describing other human beings, the differences between technical and lay terminology are easily lost sight of and a most treacherous kind of miscommunication ensues. Another difficulty lies in the fact that management is seldom aware of the limits within which the psychologist's work in selection has to be understood. Thus management is only infrequently aware of the research design requirements that would be needed properly to answer some of management's own questions.

IN CONNECTION with the task of informing management, it is important to make clear that, at a formal level, the general notion of selection subsumes many different species, each of which carries with it certain technical requirements and limits. We have to make ourselves clear about what phase or type of selection we are talking in order to communicate and have a didactic effect on the consumer of this type of research.*

**Examples of factors that alter the technical problems are:*

a. level of personnel to be selected,
b. specificity of function of the job in question,
c. possibility of using selection devices that sample job function,
d. selection from applicant *population vs. selection from* present *personnel (i.e., development).*
e. diagnosis of what a man is (static job) vs. prediction of what he will become (job with possibilities for development),
f. "institutional" vs. "individual" types of decisions.

Here some progress can surely be made, if we can find a way of making management more aware of the conceptual limitations and technical requirements of our research. One of the things that needs to be done then, is skillfully to inform management about our work in order to elicit their collaboration in setting up the necessary research designs on the one hand, and on the other, to

make them more aware of the *kind* of use they can make of our findings. Part of this work lies in the clarification of the proper role of the psychologist in executive selection procedures. His services must be understood as a supplement to management judgment and not as a ritual to be disregarded or as a substitute for judgment. The development and divulgation of a way of talking about the man-job-situation discussed above would also have a useful effect in this respect.

Conclusions

Several issues that need attention in research on management selection have been discussed in an effort to see what practical progress is feasible at the present time. First, a plea was made for a way of talking and thinking suitable for a useful analysis of the man-job-situation system. Second, the frightful issue of finding good criteria was taken up with emphasis on their intrinsic arbitrariness and the need for management's decisions as to what they want in a man. Finally, we considered the need for finding ways of informing management about the technical issues involved in executive selection research. Something that we can definitely do about the problem of selecting executive potential is to have the issues involved so thoroughly *understood*, that a group of trained persons can elicit from applicants the information required, and evaluate it in relation to the job and situation. The method is, on the surface, the same as the current ones. The difference lies in the sophistication of the persons involved in selection with regard to (a) personality theory, (b) classification of executive jobs and situations, and (c) the process of forming impressions of persons. A good deal of the knowledge and information presumed by this sophistication is as yet unavailable. ■

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So, in appraising the economic environment, industry must be watchful against indications of special disfavor. It must be on guard against measures which would deprive the corporation of the rights and guarantees which are properly those of any citizen either individually or collectively. . . .

Industry naturally reacts unfavorably to being a special target, and the attitudes which special attacks reflect cannot help but retard progress, whether they are applied at local, state, or national levels. They will slow down the rate of expansion and growth and, in so doing, militate against the interests of the country and each of its subdivisions everywhere.

Barring interruptions, I feel very certain that the prospects for industrial development are unlimited—I feel that the venturesome spirit of our people can lead us to new heights in both a material and a cultural sense. Pioneering in our day has turned from working the land to the far more challenging exploration of the physical sciences. The frontier which confronted Daniel Boone when he crossed the mountains into Kentucky a century and a half ago seemed limitless, yet we can now see that the physical frontier of 1800, great as its potentialities were, was but a patch of woods compared to the new kind of frontier which is spread before us today.

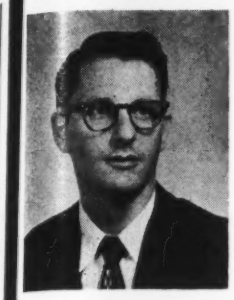
There is, however, one note of warning which I think we must observe, I am afraid that we have developed a feeling in recent years that progress is somehow automatic, that success comes along as a matter of course. We have reached a stage in which nearly everyone can go to college, and each year we see frantic bidding for our new graduates. I sometimes think that many of them must have a distorted picture of the requirements for success in any undertaking.

The fact is that the rules of pioneering haven't changed and the rules of success haven't changed. The rewards and the gains will go only to those who are willing to work hard for them.

We must remember that pioneering in industry entails the same kind of difficulties and struggles and frustrations as those faced by Daniel Boone and all other pioneers of every age. Those who would lead the way must learn to face the risks and the hazards, the obstacles and the obstructions. They must learn to overcome them with the same high courage and high resolution that have always characterized the pioneer.

The easy paths inevitably lead downhill. The paths that scale the heights are hard and slippery and treacherous, but the rewards, once attained, are the rewards of the pioneer: Hard won they may be, but well worth the winning. ■

Henry B. du Pont
"New Paths for New Frontiers"



A Work Measurement And Remuneration Concept

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OFTEN in seeking the solution to complex problems, simple definition of fundamentals is overlooked. The general tenor of past practice and current publishments in the area of the design of industrial production incentives for labor indicates that some simple basic probing of fundamentals might contribute enlightment to the problems involved.

One of the simplest fundamentals in the area of wage and salary administration involves a classical statement concerning wage payment methodology. Writers repeatedly state that there are two methods of wage payment open to employers; i.e. payment on a basis of time, and payment on a basis of output.[1] This statement, presented so often as being self-evident, may be a root source of many of the current difficulties encountered in remunerating the contributions of the labor force.

A more detailed look at the connotation of the traditional two category classification may contribute needed understanding. The two methods of wage payment might more accurately be described as being based upon input and output—i.e. on the basis of the *input of time* by the job incumbent—or on the basis of *output from the job* with which the employee happens to be involved.

1 For example, see: *David W. Belcher,* Wage and Salary Administration. *Prentice Hall, Inc., (New York,* 1955), *page* 320. *Gordon S. Watkins and Paul A. Dodd,* The Management of Labor Relations, *McGraw-Hill Book Co., (New York,* 1938), *page* 334.

Reviewing The Logic Of Wage Payment Method

Accepting, for the moment, that these two methods are the only available bases for wage payment, it might be worthwhile to evaluate the relative logic of the two methods.

Although such an oversimplification might certainly be subject to criticism on a sociological basis, it might serve a purpose to embrace the economic view that labor is *one* of the ingredients used by the entrepreneur in the production of an output. Viewing labor thusly, as an input commodity, it is possible to draw similes with other input commodities used by the entrepreneur. How does the entrepreneur pay the suppliers of these other input commodities?

The manufacturer involved with steel fabrication pays for steel on the basis of the quantities of steel received, not on a basis of how many units he produces from that steel. It is true, of course, that the production realized must effect economic decisions with respect to the purchase of the steel. But these are decisions of management and do not effect the method of compensating the supplier on the basis of the quantity of steel supplied measured in a unit of measure specifically designed for that commodity.

When the clothing manufacturer buys textiles, he pays on the basis of the quantity of cloth received and not on a basis of the number of dresses or suits he is able to realize from its use. Here again, the use of the commodity must be effected by managerial economic decisions which do not directly effect the method of compensating the supplier.

Even more analogous to manpower as a commodity are other forms of power used by entrepreneurs as inputs to the production of an output. Users of electrical power pay for that commodity on the basis of the units supplied—units specifically designed for the measurement of electricity. It is recognized by the suppliers of electricity that the efficiency of utilization of such a power source can vary dependent upon its use (as indicated by the development and application of power factors in the determination of industrial power consumption), but the supplier must be compensated on the basis of power supplied. The electrical power purchaser does not pay the electrical power supplier on some basis dependent upon the results of the application of that electrical power. Such a result depends on many factors over which the supplier has no control. The responsibility of the supplier is the availability of an input commodity for which he is directly compensated.

Would not the same reasoning which applies to electrical power have a degree of applicability to manpower? If so, a re-evaluation of thought with respect to the basis for wage compensation might be worth-while.

A Review Of Wage Incentive Fundamentals

First of all, the practice of considering payment on the basis of output as being synonomous with financial wage incentive is somewhat fallacious. *Incentive is involved whenever wages are paid*—regardless of the basis of the wage computation.[2] Employers pay wages because they want to motivate people. Employees are motivated by wages because through wages, in the complex social-economic system which exists, a contribution is made to the fulfillment of certain basic urges or needs.

Although the psychological basis for incentive through financial wage payments is exceedingly complex,[3] an oversimplified statement of the structure may serve as orientation for thought. On the basis of the hypothesis that persons are motivated to satisfy basic urges and desires, apparent material needs result. In the existent economy, many apparent needs can be satisfied through the use of money, a need for which results. Thus through a series of real and artificial relationships a need for money has been created.

The problem of the design of industrial wage incentives involves the carrying of this chain of relationships one link further in the creation of an artificial need or motivation for achievement of employer created goals. For the employee, the attainment of such goals should permit the fulfillment of his need for money, and thus for many apparent needs, and thus for many basic urges or desires.

The Direction Of Motivation Problem

A foundation for intelligent action in this area must revolve around a real understanding as to the desired direction of motivation. The tool for motivation exists—*the problem is in the definition of what is to be motivated.*[4]

As a beginning point, it might seem reasonable to embrace the assumption that wages are paid to motivate employees to provide an input. It should be the *responsibility of management* to take this employee input and cause it to contribute satisfactorily to output.

However, the crux of the problem revolves around a more elementary point —a lack of understanding as to what should be the nature of this employee input. An input of what? TIME? PHYSICAL ENERGY? VISUAL ATTENTION? MENTAL THOUGHT? ONE OR MORE UNKNOWNS? VARYING COMBINATIONS? The nature and existence of systematic job evaluation programs making use of several factors indicates the combinations of inputs (or at least inputs of varying content) that are involved. However, job evaluation concerns the *qualitative* requirements for the supplier of the input. Does it necessarily follow that the actual inputs are so defined—and if so, would this provide answers to *quantitative* inputs?

The Logic Of Applied Wage Methodology

Variation in the desired employee input contribution undoubtedly provides much of the reason for the many different methods of wage payment—*but the lack of an objective and quantitative definition of such desired contribution may be of even greater significance.*

Any type of wage is paid as an incentive to motivation of the employee. There is more than one alternative basis for such motivation, however. All financial motivation is based on the artificial need, existing in most individuals, for money as a vehicle for the satisfaction of more basic needs. How such monetary need is to be satisfied determines the basis for the frame of reference in wage administration.

If the goal is defined as *the payment of a reward sufficient to motivate "maximum" effort by the employee*, then wage administration remains basically an art of motivation. If the goal is defined as *the creation of a need to contribute by relating compensation to quantitative input contribution*, then wage administration becomes dependent upon the science of measurement. For purpose of the following analysis, the assumption is made that the latter is the desired frame of reference, and that the many different methods of wage payment in use represent compromises in the achievement of that goal.

The Logic Of Time Wages

If management chooses to pay employees on a basis of time wages, it is indicating that something (i.e. an input to the production process) is to be purchased from the employee. On the surface, as indicated by the methodology, it might appear that management desires to purchase only the presence of the employee. In actuality, of course, the methodology is a compromise. The commodity to be purchased cannot adequately be defined and/or measured so management elects to pay for elapsed time and leave to hour-to-hour decision the answer to the question of what is really to be purchased. Often this decision must be resolved, at least in part, by the lowest echelons of supervision and/or the employee himself.

The Logic Of Profit Sharing

If management elects to make use of a profit-sharing plan, it is again indicated that something is to be purchased from the participating employees. There is probably reason to believe that management is not able to accurately define and measure the desired contribution, but the embracing of profit-sharing would indicate that it is believed that the quantity of this undefined input will affect the financial welfare of the production organization. It is therefore decided to base employee compensation according to elapsed time modified by some factor dependent on the level of "profits," leaving to a large degree to the employee the decision as to what contribution will maximize his return.

The Logic Of The Group Output Method

If management chooses to adopt a group incentive plan, it is saying that the specific input to be desired is not directly subject to measure but that it is related in some way to team-work and to output. An attempt is made to determine and define this relationship, but in such an option, wage compensation is based on a measure of the production output of the group and much of the decision regarding employee contribution is left to the judgement of the employees as individuals or as a group.

The Logic Of The Individual Output Method

If management elects to use individual wage incentives or piece rates, there is indicated a desire to buy some sor: of

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[2] *L. P. Alford and H. Russell Beatty,* Principles of Industrial Management, *revised, Ronald Press Inc. (New York,* 1951), *page* 650.

[3] *For detailed discussion of this psychological basis see, e.g.: G. Murphy,* Experimental Psychology, *revised, Harper Bros. (New York,* 1937); *A. T. Poffenberger,* Principles of Applied Psychology, *D. Appleton-Century Co. (New York,* 1942).

[4] *This has been referred to by Maier as the "objective" aspect of a motivating situation. The need which the employee would hope to fill by achieving such a goal would be thought of as the "subjective" aspect. N. R. F. Maier,* Psychology in Industry, *Houghton-Mifflin Co. (Chicago,* 1946), *page* 250.

input from the employee; an input which if properly used will be directly reflected in the quantity of output from the job involved. The compensation is not predicated on the *value* of the output as it is recognized that there are many other inputs involved in production. It is therefore necessary to attempt determination of the relationship between labor input and product output, but it is deemed expedient to state payment for labor directly on a basis of output and thereby place on the employee a degree of responsibility for deciding what he is to supply and how it should be used.

A Shifting Of Responsibility Involved

In each of these cases, the methodology adopted would indicate a shifting of responsibility for the control and utilization of an input commodity (i.e. the labor) to the supplier of that commodity (i.e. the employee). This is, of course, an oversimplified statement of the situation. Such analysis of the various methodologies merely points up the insufficient performance of wage administration as the purchasing function for labor. Such administration has very often only succeeded in transfers in responsibility, sometimes directly to the employee but more often to the lowest echelons of direct supervision.

The Nature Of The Remedy

Fortunately this relinquishment by management of the prerogative (and responsibility) of directing the purchase and utilization of a major ingredient of the production process is not without attempts at remedial action. Such action must necessarily come about through the development of the ability to define and measure desired employee contributions. Great contributions were made in this direction by Frederick Taylor in the development of systematic stop watch time study.[5] Since that time much further progress has been made by many persons in the development of methodology for the systematic definition and measurement of work. The tools available for this purpose today, although far from perfect, are sufficient to provide much more sufficient results than are generally achieved.

Unfortunately, much of the potential value and contribution of these measurement tools is lost, not because of the defects and shortcomings of the tools themselves, but because of the misdirected orientation of those concerned with their utilization.

In spite of the fact that, since the contributions of Taylor, much emphasis has been directed toward the systematic measurement of work, insufficient recognition is provided to what may seem a fine point of differentiation. This differentiation is between the different connotations of "determination of output quotas" versus "determination of work requirement."

Although the establishment of quotas and standards with respect to output is a primary end purpose of work measurement, it should be recognized constantly that such is the end point and not the means. In the systematic measurement of work, input rather than output is measured. A proper understanding of this differentiation contributes to this area in three very significant ways: (1) it obviates misunderstandings on the part of employees, (2) it makes possible better definition of management responsibility, and (3) it pinpoints the goal involved in work measurement procedures.

Effect On Employee Relationships

If it is clearly understood by the employee (and is clearly true) that remuneration is based upon the input or contribution, not the least of the advantages will be an understanding that production quotas as stated in terms of output should change with changes in method. The success of many incentive programs has undoubtedly been subjected to hazard by the belief that the production performance standard measures *output* rather than *work necessary to output.* The difference in terminology and concept is not a play on semantics—it is real and important. The hazards have resulted from a lack of awareness on the part of many administrators that performance standards need continued maintenance to reflect changes in work input requirement rather than changes in output product. They have also resulted from lack of understanding on the part of the employee with respect to the justifiable basis for change in performance standard with change in method. Such justification is clear if the standards clearly measure work rather than output.

Effect On Definition Of Managerial Responsibility

The embracement of such a concept of the measurement of work should contribute understanding of management responsibility involved in the prerogative to manage the factors of production. If payment to the employee is based on time or understood to be based on output, an inevitable shift of responsibility from management to employee is involved. In the absence of constant supervision, the assumption of a degree of responsibility by the hourly paid employee for direction of at least one of the factors of production, the labor he contributes, is almost inevitable. For the employee paid on a basis of output, the transfer of responsibility is more difficult to define. It can be recognized, however, that in the production of an output other factors than just labor are involved. It must follow that if remuneration to the employee (the supplier of labor) is on a basis of output, then compensation for labor (the commodity supplied by the employee) is dependent on other factors than the quantity of labor supplied.

Effect On Work Measurement Techniques

This point brings into focus questions with respect to the definition of that which is referred to as labor or work. It might very well be that the transfer to the employee of a degree of responsibility for the utilization of the factors of production is deliberate—i.e. it may be that such responsibility is an ingredient of labor (work). If this is true, then *any valid measure of work must reflect the quantitative content of such ingredient.* It is doubtful that the present (artificial) quantitative units used in work measurement are sufficient to a task so defined. It might be that a real acceptance of the concept of employee inputs could contribute to progress in this area by causing to be obvious the need for definition of such input. It is self-evident that what cannot be defined cannot be satisfactorily measured,[6] and it would appear doubtful that work (employee input) has yet been adequately defined.

Conclusions

It may be that the problems involved in the unit measurement of employee contributions are insurmountable for purposes of practical application. The

[5] *For a survey of the historical developments in this respect see:* George Filipetti, Industrial Management in Transition, *Richard Irwin, Inc. (Homewood,* 1953).

[6] *For a discussion of basic theories in measurement see:* Paul Kircher, *"Fundamentals of Measurement,"* Advanced Management, (*Vol. XX No.* 10, *Oct.*/55).

The Modern Science of Managing

THE PHRASE "Measurement of Management" is made of many parts which are different in both material and purpose, yet which are oriented in structural or organic balance and move—one with respect to the other—to create a total and purposeful organization.

Indeed, like these delicate mobiles which are the graceful expressions of dynamic spatial relationships, the "Measurement of Management" is a kind of business sculpture whose objectives need to be visualized in terms of the integrated total of its elements. For those who undertake to create such structures, however, there is a need to study each part as a part having certain characteristics which contribute to the final pattern, but which, in themselves, also have a particular pattern, shape and impact.

"Management" is a vague and unsubstantial kind of work until we divide it into those elements which have been grouped within its meaning. There are two basic parts, really, and they need to be separated and separately understood if we are to come to grips with the job of measuring as part of the total work which a manager must do.

"Management" is made up of two things: first, the people who are managers, and second, the work that such people do to obtain component or business objectives. While the relationship of these two parts is obvious, simply because it is the manager who does the manager's work, for the purposes of rigorous analysis it needs to be equally clear that we must separate these apples and oranges in order to know the flavor of either.

"Management" is a catch-all, as generalized and unrevealing of content as the label on a file-cabinet drawer. We need to study it by digging into it to the limit of our ability to separate its parts. It is managers, it is the work which managers do, and, finally, it is the interaction and interdependence of these two which result from the mixture of intellect and personality on the one hand, and knowledge and skills on the other.

There is a further concern which we need to face in exploring the "Measurement of Management." How is it to be done? I think you will agree that we necessarily will speak with greater accuracy and the promise of greater insight, of what may be called the "Measurement of the Enterprise." There are no standards and no factors of which I know which can be used in assessing the performance of the manager or the contribution of his work, other than those involving the logic and language of the enterprise itself. . . .

The modern science of managing is, at one and the same time, an expression of the sound application of fundamentally unvarying ethical and moral concepts, and a statement of the practical experience of successful managers.

Managing is a professional kind of work, made distinct by the reasons which have created its place in our society and in the business and industries which form so important a component of that society. It is made unique by the quality and combination of knowledge and skills which must be the resources at the hand of the managers.

It is based upon a belief that man is an individual who joins with other men to accomplish tasks of common importance, to achieve the security of order, to satisfy intellectual hungers and curiosities, and, finally and perhaps most importantly, to protect, by collective laws, customs and actions, his status as an individual.

It contains within it a recognition that the basic search of people is for order, and it presents a method and set of principles which are directed toward the establishment and maintenance of such order, and yet which stimulate the society to grow and progress.

The science of managing is made dynamic because there is provision to establish standards and criteria of performance against which the values of the science can be measured, and fed back into the total of principles and processes to refine and strengthen their meaning.

It is one which can be verified; it is one which can be taught; and, above all, it is one which can be learned.

Harold F. Smiddy
"What Is the Job of Measurement?"

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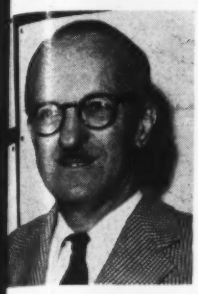
inputs to be measured cannot be based upon the efforts of individuals. The entrepreneur is interested in the purchase and utilization of standardized inputs, *the definition of which should be independent of the individual supplier.*

If such an independent unit of measure cannot be satisfactorily developed and applied, the analogy of labor to other production input commodities is not valid. If this is the situation characteristic of labor, compensation becomes less a matter of measurement and more a matter of motivation. It may very well be that wage administration does involve the art of motivation rather than the science of measurement. However, if measurement is the goal, then the contribution of the supplier should be the subject of that measurement.

The concept that production performance standards for labor should involve work input rather than product output is no newer than the contributions of Frederick Taylor, and the concept is certainly not a contribution made here. The thesis that *is* here proposed is that the emphasis and recognition of the concept is not sufficient to the task. The contribution of a more complete reorientation in this respect could very well be real and worthwhile. ■



The Economics Of Shorter Hours

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DURING 1956 and 1957 a great deal of attention was given in this country to the question of shorter hours. The unions were especially interested in the issue, and showed their interest in a number of ways. Union leaders, often referring to the impact of automation, expressed opinions on the subject, as did union periodicals. The AFL-CIO, in 1956, sponsored a Conference on Shorter Hours. And during the period a considerable number of labor organizations made pronouncements on the question.

Not only did the unions show a keen interest in shorter hours at the time but so did the general public. Much of the discussion outside union circles was directed towards the problem of increased leisure, which, of course, is the opposite side of the shield to decreased hours. As in the 1920's we were again becoming "leisure conscious."

But then the question of shorter hours and more leisure suddenly lost its popularity. Two factors were responsible for this turn of events: first, the appearance of Sputnik I, which came as an immense shock to the American populace; and secondly, the continued decline in the economic activity of the nation.

Once again, however, renewed interest is being shown in the question. The most significant manifestation of this interest is the action taken by the AFL-CIO Executive Council at its meeting in February of this year. The Council members, concerned about the employment effects of recent technological changes, urged that Congress amend the Fair Labor Standards Act by replacing the standard 40-hour week with one of 35 hours. The only alternative to this and other measures for increasing mass purchasing power, Mr. Meany dramatically declared, is to "shoot 10 per cent of the population."

Probably not all union leaders would agree with the shorter-hour proposal of the AFL-CIO executive body. At least Mr. Hoffa of the Teamsters' union does not agree with it. He is of the opinion that the time is not opportune for a campaign to reduce the length of the work week, and that labor should seek still higher real wages.

Despite the feeling of Mr. Hoffa and of others who may share his view on the matter, there is a strong likelihood (barring a worsening of the international situation) that the unions will apply increasing pressure both on the government and directly on employers to have hours reduced, and with no reduction in take-home pay. This pressure will be exerted despite the existence of "moonlighting" among many individual union members. There is also a strong likelihood that in the months and years immediately before us working hours in many plants will be lowered. Such a uniform reduction, however, as the amendment of the Fair Labor Standards Act would involve does not seem to be imminent.

The prospect of the length of the work week being further reduced, resuming its long time trend downwards, raises some important economic questions, a number of which we shall examine in the discussion that follows. Though our analysis will be primarily in terms of the present and the future, we shall give some attention to "historical background."

Arguments Old and New

Over the years the case for shorter hours has rested on a variety of arguments, both economic and non-economic. Probably the earliest was the citizenship argument, which first came into prominence during the 1820's in the campaign for the 10-hour day. The long hours of work that prevailed at that time, and the extension of the right to vote to non-property holding males, contributed greatly to the popularity of the argument. These factors also gave it definite merit. Today the argument has little validity. In very few cases are hours so long that the worker is denied the opportunity of acquiring the attributes of a good citizen and of engaging actively in political affairs.

The health argument also came into prominence during the last century, a product largely of the development of the factory system. In view of the unhealthy conditions that often prevailed in factories, and the hour standards that were then existent, this argument too had merit. And it continued to have merit for many years. At the present time the argument is not commonly used, although there are undoubtedly situations in which working hours are still too long from a health standpoint.

About a hundred years ago the greater-pay argument came into the fore-

front. This argument had two versions, one based on the supply of the workers and the other on their standard of living. The notion that wages can be increased by decreasing the supply of labor—*via* a reduction in hours—may seem at first sight plausible, but a little reflection will show that it is basically unsound. How it is possible for workers *in general* to produce less per day and at the same time receive higher daily wages is a mystery that has not yet been solved. The second version of the greater-pay argument played a dominant role in the 8-hour campaign of the 1860's, which was led by a Boston machinist named Ira Steward. In this version it was argued that shorter hours gave rise to greater wants on the part of the workers which, in a rather circuitous manner, finally resulted in higher pay. Mrs. Steward expressed, in somewhat exaggerated terms, the philosophy of the shorter-hour movement in a verse that was long popular in union circles:

Whether you work by the piece
Or work by the day,
Decreasing the hours
Increases the pay.

The thought embodied in this poetic utterance is very optimistic. It is also, in most instances, very incorrect.

A CLOSELY related argument shifts emphasis from greater pay to greater production. Shorter hours have been advocated in the belief that they will result not merely in greater production per hour but greater production per week. There were probably instances in times past when the work week was excessively long, judged in terms of physical output; or, to state the point in the Economic terminology used by Professor J. R. Hicks, when the actual hours worked per week exceeded the "*output optimum length of the work week.*" There may even be plants in which this is true today. As a general proposition, however, it seems clear that only in rare instances would a further reduction in hours bring about, *of itself*, an increase in weekly output. But more on this matter later.

The unemployment argument has long been used in the demand for shorter hours. It has been particularly popular during periods of rapid technological change. In his annual report to the convention of the AFL in 1887 Samuel Gompers declared that "*The displacement of labor by machinery in the past few years has exceeded that of any like period in our history.*" Then, after citing various examples of mechanization, he went on to say, "*The answer to all opponents to the reduction of the hours of labor could well be given in these words: 'That so long as there is one man who seeks employment and cannot obtain it, the hours of work are too long.'*"

The spirit of this classic statement of Gompers is reflected in some of the recent views that have been expressed on the question of automation. There is a widespread feeling that with the phenomenal changes now taking place in industrial technology it is absolutely necessary for us to reduce hours or else experience serious unemployment. This contention deserves closer examination and we shall return to it in a moment.

The final argument for shorter hours, which we might call the welfare argument, is based on the notion that as the productivity of industry increases and builds up some of the productivity gains should be taken in the form of more leisure. In this way the welfare of the workers will be enhanced—enhanced to a greater degree than it would have been had all the gains been taken in higher earnings. This argument makes no claims about shorter hours leading to more production (it implies, indeed, the very opposite: greater production should lead to shorter hours). It does not state that shorter hours bring about less unemployment, or promote the achievement of any of the other goals mentioned in the previous arguments. It simply states that as industry becomes more and more productive the leisure-wage balance should be tipped more in favor of the former; that is to say, relatively more of the gains of increased productivity accruing to the workers should be taken by them in the form of leisure and relatively less in the form of goods and services. The welfare argument is not greatly emphasized at the present time, yet of all the arguments it is the most reasonable one. It is difficult to build up a case for still shorter working hours on strictly economic grounds. It is not difficult, on the other hand, to build up one on psychological grounds. That is what the welfare argument attempts.

Hours and Unemployment

At the 1932 convention of the AFL, President William Green asked the rhetorical question, "*Is there any reasonable, sensible-minded man who can believe we could equip industry with machinery and provide (employment) six days per week and eight hours per day in a highly developed mechanized industry for every man and woman willing to work?*" This statement, made during the Great Depression, expresses what appears to be a rather commonly held belief, namely that extensive unemployment is inevitable if, as the process of industrial mechanization continues, we do not permanently reduce the length of the work week. Is this view correct? Or, to put the issue in a form more in keeping with the theme of the present discussion, will shorter hours bring about a reduction in the volume of unemployment?

IF WE are thinking of a *permanent* reduction in unemployment, the answer is a negative one. Both the weight of historical evidence and a study of the root causes of unemployment bear out this conclusion. If the attainment of shorter hours and more leisure resulted in less unemployment one would have good reason for expecting that over the years the volume of unemployment would have decreased. Yet no such decrease has taken place. The reduction of the work week from 72 hours to 60 hours, from 60 hours to 48 hours, from 48 hours to 40 hours does not seem to have had any appreciable effect on the relative amount of unemployment in this country. And, looking ahead, it is not likely that the establishment of the 35-hour week, and later the 30-hour week, will produce any different result.

This is due to the simple fact that the basic causes of unemployment are not eliminated by the achievement of shorter hours. The factors that bring about seasonal unemployment can operate just as effectively when the standard work week is 35 hours as when it is 40 hours or 60 hours. At 30 hours the seasons will still come and go, and with them there will occur, in numerous industries, marked seasonal variations in consumption or production; and with these variations there will continue to be unemployment.

The unemployment caused by cyclical fluctuations in business activity is not likely to be affected by shorter hours. Regardless of the length of the work week unwise monetary policies may be pursued in our economy, waves of optimism may alternate with waves of pessimism, savings and investments may be thrown out of balance, and spots on the sun—with which cyclical ups and

downs in business have even been associated--will still appear. In other words, the causes of the business cycle, and hence of cyclical unemployment, are not removed by the achievement of shorter hours.

Shorter hours will not reduce the volume of technological unemployment. New methods and new machines will continue to be introduced after the 35-hour week is established, just as they have been introduced under work weeks of longer duration. In fact, if as the hours of work are forced downward the wages of labor are simultaneously and substantially forced upward, the volume of technological unemployment may be increased. In this situation the pace of mechanization may be speeded up. Under any circumstances, as ordinary technological changes continue to be made, as the process of automation extends its sway, and as atomic energy comes to be applied to industrial uses there will be technological unemployment.

THUS the main types of unemployment, and the main causes of it, are not really affected by changes in the length of the work week. There can be as much unemployment with a standard work week of 35 hours, or of 25 hours for that matter, as with a work week of 40 or 50 hours.

It is sometimes argued that additional leisure more or less directly contributes to greater production and greater business. If this were to happen more jobs would obviously be created. In a manner somewhat reminiscent of Ira Steward, an early UAW pamphlet declared that: "Shorter hours mean more leisure, more leisure means more consumption and more business. Don't you eat more, drink more and raise more cain when you are on a holiday, on a vacation, or when just plain loafing? Don't you start to make whoopee the moment you are out of the slave pen?" If this statement is applied to goods and services in general it is basically incorrect. A reduction in the hours of work alters the pattern of consumption but it ordinarily does not enlarge the total volume of consumption. (The pamphlet's definition of leisure as "loafing with an income" does not get around the issue.) Unless the shorter hours lead directly or indirectly to greater aggregate production, which is the ultimate determinant of total income and total purchasing power, they do not cause an increase in *total* consumption. If shorter hours had such an effect we would have discovered a very simple method for raising living standards, increasing the volume of business, and permanently decreasing the total amount of unemployment.

Creative imagination is not confined to a few people. All are born with it but few use it to capacity. Psychological studies indicate that creative talents can be developed, and that individuals with high intelligence are not always the ones who produce the most original ideas.

John B. Joynt
"Stimulating Creativity"

On the general question of hours and unemployment two additional observations must be made. First, there are times when *temporary* reductions in hours are desirable as a means for coping with unemployment, and many employers in this country resort to such a policy. Secondly, while a permanent reduction in hours does not permanently lessen the volume of unemployment, it may reduce it for the time being. The shift from one hour-plateau to another can lead to an increase in the number of jobs available, assuming there is no appreciable reduction in the total amount of work to be done. This will reduce the volume of unemployment temporarily, and thus such a policy is all to the good. But when conditions are adjusted to the new hour-plateau the causes of unemployment will still be operative. The problem of unemployment will still be present.

If, to add one further consideration, the amount of work to be done in our economy were subject to some fixed, rigid limitation (as some persons seem to assume), then the case for *permanently* reducing hours as a means for coping with unemployment would be incontestable. But in a dynamic economy such as ours there is no such limitation; there is no permanently fixed "work-fund." If such were the case, most workers would now be out of employment in view of the tremendous technological gains that have been made over the years.

The Pattern of Production

One of the characteristic features of a dynamic economic society such as we have in this country is the constant change that takes place in the pattern of consumer wants. This change is brought about by a variety of influences of which advertising is one of the most potent. But there are still other powerful influences at work. The amount of leisure time the consumers have at their disposal is one of these.

THE coming of the Age of Leisure, with its shorter work days, longer weekends, regular vacations, its more frequent holidays, and now its increasingly common "coffee breaks" has brought about significant changes in the pattern of consumer demands. In this way it has led to changes in the general pattern of production. Many of the goods and services produced today minister to the needs of a leisure type of society. Without such a society these things would not be produced at all or in much smaller volume. Henry Ford pointed out this fact very clearly in his book *Moving Forward*. We would have "a great closing down of shops," said Mr. Ford, if with the prevailing methods of production we returned to the 72-hour week, "because the people, regardless of their finances, would not have the leisure to consume what was being produced." Not only would "shops" be forced to close their doors but many other types of enterprises such as recreation centers, garages, movie houses, and broadcasting stations would suffer seriously.

The shortening of the work week in times past has had a profound effect on the pattern of people's wants, and hence on the pattern of production. In the years ahead, as the hours of work are shortened still more, the same results will follow. Industries and employments that cater to the leisure activities of the populace will continue to experience definite growth. They will become increasingly important, both absolutely and relatively, in the American economy.

Fears have sometimes been expressed that the public has just about reached the limit in the variety of goods and services it wants. Back in the 1930's Mr. C. C. Furnas, in his book *America's Tomorrow*, expressed the view that it is "becoming increasingly difficult to invent something that the public will desire to buy." So far there is little evidence to bear out this conclusion. The wants of consumers seem to have, like Queen Cleopatra, the distinguishing feature of "infinite variety." There is still a vast untapped reservoir of wants for new goods and services, both of the leisure and non-leisure variety. To be

sure, there are a few persons who believe with Thoreau that "A man is rich in proportion to the number of things which he can let alone." Without entering upon a discussion of the validity of Thoreau's contention, it can be said very positively that most Americans are more interested in expanding their wants than in diminishing them.

Consumer Satisfactions

With the growth of leisure time there has been a great increase in the variety of goods enjoyed by consumers. This has been an important factor in increasing the satisfactions obtained from consumption. If the productive efforts of our economy were limited to turning out, in vast quantities, a small variety of goods the people would receive less satisfactions from consumption than if the range of goods produced was more extensive (and the volume of each type somewhat smaller). This conclusion is based on the Principle of Diminishing Marginal Utility, which says that the more units of a given good a person has the less is the satisfaction or utility he derives from an additional unit.

ANOTHER point to be stressed in this connection is that the satisfactions one receives from many kinds of goods and services is closely tied up with the amount of time he has for consuming or using them. This is clearly seen, for example, in the case of the automobile. If the length of the work week were 60 hours the opportunities for motoring would be greatly reduced and one would not be able to enjoy his car nearly as much as he can when the work week is 40 hours. The same is true of numerous other articles, including radios and television sets. Even such a non-leisure item as food requires for its full enjoyment a sizable amount of time for the consumption process. This is also true of certain items of dress, particularly those in which the element of "conspicuous consumption" plays a part. Certainly it profiteth a man very little to have a superabundance of goods if he has no leisure time in which to enjoy them.

But a word of caution on the matter of leisure should be expressed. It is possible that we overemphasize the amount of solid enjoyment leisure brings. Some decades ago the English scholar, Henry Sidgewick, remarked (in his *Principles of Political Economy*) that "there is a widespread opinion among observant persons that human beings generally have a tendency to over-value leisure as a source of happiness." If in the last century, when the length of the work week was very long, human beings overemphasized the significance of leisure, it would seem that they overemphasize it even more today. The question raised here is a very interesting one, but to pursue it any farther would take us far outside the realm of Economics.

We have emphasized the point that a further decrease in the length of the work week will change the pattern of production. What, we may now ask, will it do to the volume of production? There is good reason for believing that shorter hours will in most instances result in an increase in output per man-hour. The typical worker will probably produce more per hour in a 35-hour week than in a 40-hour week. But will he produce more per week? This is the crucial question.

The Volume of Production

In some cases it is possible that weekly output will increase with, and as a result of, the reduction in hours. The shorter hours may lead to less absenteeism, fewer accidents, some increase in the pace of work, a reduction in fatigue, and a certain amount of enforced mechanization. They may even increase the dynamic nature of our economy a little. Considered by themselves these potential developments have a favorable effect on production. However, taking all pertinent factors into account, there is a strong likelihood that a shorter work week will lead to less production. In their book on *The Eight-Hour Day*, published more than half a century ago, Webb and Cox affirmed that "experience shows that, in the arithmetic of labor . . . two from ten is likely to produce, not eight, but even eleven." This may have been true in some industries in times past (e.g. the Zeiss Works at Jena, to cite an old and favorite illustration used by economists), but such arithmetic does not seem to hold today. Five from forty, instead of yielding, say, forty-two is more likely to yield thirty-six. In other words, less will be produced in a 35-hour week than in a 40-hour week.

This means that if an abrupt and rapid shift is made to the 35-hour plateau production will suffer and material living standards decline. If the transition is gradual, however, there may be no absolute drop either in production or living standards. In this case the long-run gains in industrial productivity, brought about by improvements in technology, in methods of production, in materials, and so forth may offset any losses consequent upon the reduction in hours. Of course the fact remains that if hours were not reduced, total output would be still greater and material living standards (though not necessarily consumer satisfactions) would be still higher. It is interesting to note that Walter Reuther has stated that the timing of the actual reduction in hours will vary from industry to industry, depending on "the economic facts as they relate to our technology."

The point needs to be emphasized, however, that the attainment of extra leisure involves a price; it involves a sacrifice on the part of those who obtain it. This sacrifice may mean an absolute decline in material living standards, or, assuming a gradual shift to shorter hours, a retardation in the rate at which living standards go up. (Mr. Hoffa, whom we referred to earlier, seems well aware of this fact.)

It is possible that some workers would welcome a reduction in the length of the work week even though it involved a loss, an actual decline, in real wages. The extra free hours may have more significance to them (i.e., yield them more "utils" of satisfaction) than the things they could buy with the money they would have received had they worked these hours. It is doubtful, however, that many workers are in this position. Most of them would not want to see any absolute drop in their living standards. This is particularly true of those workers whose living standards are still low. For them especially the price of extra leisure would be too high. In general, American workers want to see their real wages maintained, or even go up, as the hours of work are reduced. If this wish is to be satisfied the length of the work week cannot be reduced too abruptly.

Employer Problems

The impact on the employer of an enforced reduction in the length of the work week depends, in part, on the size of the reduction and on the change that takes place in wages—both in wages per hour and wages per week. It also depends on the extent to which the gains in man-hour productivity in the immediate past have already been "used up" by higher wages.

If we were to assume that there had

been no change in man-hour productivity, a reduction in weekly hours from 40 to 35, with no change in weekly wages could be disastrous to the employer. Under such circumstances wages per hour would rise substantially, costs would increase, and profits would be reduced. Indeed, profits might be wiped out completely and the employer forced into bankruptcy.

If the employer is in a highly competitive industry, which means, in the parlance of Economics, that the market demand for his product is very elastic, he could not pass on the increased cost to the consumer. If he raised his price his sales would fall off drastically. However, if the employer is in a monopolistic position, or if he is covered by an industry-wide collective bargaining agreement, much of the cost might be shifted on to the consumer. Under either of these conditions higher prices may mean only a moderate decline in sales, the acual decline depending on the elasticity of the demand for the industry's product.

IF SHORTER hours are forced upon an employer who either has no accumulated productivity gains or whose gains are of very small size, it would be better from his standpoint to have all the employers in the industry brought under the arrangement. In this way the higher costs could at least in part be passed on to the consumers—including the workers in the industry. In other words the increased leisure for the workers would be achieved, in part, at the expense of the general public. Here we see a possible danger in the coming drive for shorter hours. If the cost of the hour-wage package the unions succeed in winning exceeds the accumulated, "surplus" productivity gains, there is a strong likelihood that the public will pay the deficit—pay it in the form of higher prices.

The enforcement of shorter hours need not inevitably lead to higher prices for the public nor to financial difficulties for the employer. If the man hour output in a plant has been increasing, and is continuing to increase, the employer may be able to grant a reduction in hours and at the same time maintain—in some instances even moderately raise—weekly wages. This could be an alternative to the maintenance of weekly hours and a raising of hourly and weekly wages, the policy that has been largely followed during the last two or three decades. But, as we have emphasized before, the reduction in hours could not be too great. Shortening hours from 40 a week to 30, with no change in weekly pay, would be more than most employers could afford. This would be equivalent to an hourly wage increase of more than 30 per cent, which would be much in excess of any gain in hourly productivity resulting from the reduction in the length of the work week. Even a shift to 35 hours would create serious economic difficulties for many employers.

In the interests of the workers and of society at large, it would seem nevertheless that some reduction in the length of the work week is now warranted, or at least will be shortly. It must be emphasized, however, that the reduction must not be too great. In the present cold war situation, with Russia attempting to catch up to us and surpass us in industrial output, and in a world in which many underdeveloped countries need our economic assistance, any large and sudden cut in hours — say, 5 hours or more per week — would be undesirable and perhaps hazardous.

In the present connection, however, it should be noted that the question of reducing hours has come into some prominence even in Russia. Early in 1959 the congress of the Communist Party announced various hour-goals. By 1962 the 40-hour week will be attained; and in 1964, we are told, the gradual transition to still shorter hours will be started — with a goal of 30 hours for persons in underground and unhealthy occupations and of 35 hours for others. Whether or not these objectives will be reached remains to be seen.

As a general social ideal many American employers are undoubtedly willing to grant the desirability of shorter hours, providing they are not *too* short. But there can be no question that a further reduction in the length of the work week would create some serious problems for them.

One of the problems would be that posed by the increased idleness of expensive capital equipment. This problem is especially serious when the rate of obsolescence is as great as it is at the present time. It is altogether likely, therefore, that when the standard work week is reduced to 35 hours or thereabouts employers will give increasing attention to the feasibility of multiple shifts. Use of the shift system makes possible a more intensive use of capital equipment and in general contributes to a lowering of overhead costs per unit of output. There are disadvantages to the use of shifts, to be sure, but these are reduced somewhat as the duration of the shifts decreases. For example, worker opposition to a two-shift plan would be less if the shifts lasted 7 hours than if they lasted 8 hours—assuming the second shift did not go much beyond early evening. The long-run tendency in this country seems to be definitely toward an increasing utilization of the two-shift system.

EMPLOYERS may be placed in a difficult position if the unions in their plants are determined to obtain both a marked reduction in hours and a sizable increase in take-home pay. Resistance to extreme labor demands can be expected, of course, and it is possible that in the next few years the amount of industrial strife will increase. It is to be hoped, however, that the unions will realize that not only from the standpoint of the employer but from their own standpoint and also from that of society as a whole there is a danger in reducing the length of the work week too rapidly. If this attitude is accepted and if, on the other hand, employers realize that there is nothing eternal about the present hour standards, our relatively good record of industrial peace should continue to prevail. ■

On the brink of the atomic era with great advances in technical know-how available to all of us, the disabled worker should be able to compete more than ever before, provided he is not handicapped by the ignorance, aversion and prejudice toward the disabled, which remain with us from previous eras. ■

Henry Viscardi, Jr.
"Can Disabled Workers Meet the Demands of Automation?"

The Common Sense Of Long Range Planning

by Eugene J. Benge

Benge Associates
Asheville, N. C.

OVER past decades, companies have derived competitive advantage from new management devices like incentive pay, up-to-date machinery, new products, attractive selling techniques, etc. This process of competitive leverage continues; for example, concerns with electronic computers are beginning to feel the profit advantage of their installations.

Long range planning is another, and probably the most recent, management practice which can give competitive "edge" to a company. LRP is more than a mere projection of trends, because in part it is designed to *make things happen* which otherwise would not occur. It may even enable a company to sail against adverse economic winds, to make progress while competitors are in the doldrums.

Although long range planning centralizes the aims of a company in top management, it decentralizes the sub-planning under those aims and the execution of the sub-plans. LRP is not only a device for stable industries like food and meat, but is being successfully utilized in cyclical industries such as steel, machine tools and luxuries.

Before undertaking LRP a company should study any limitations in its corporate charter. Part of the planning might include changes in the charter itself! Likewise it should make an analysis of stockholder interests. A different problem exists when a company is owned by a handful of large stockholders than when ownership is spread among thousands of small stockholders.

The management of a company requires technical skill, plus talent in human relationships. The development of a long range plan calls upon a new type of ability, sometimes known as conceptual skill. This is high level imagination which is capable of crashing old thought barriers. It takes time and patience to piece together the jig-saw puzzle of long range planning—but the process presents a beautiful picture when completed.

Management's first consideration is survival. Not infrequently, in time of financial depression, executives panic. Experience shows that when they have joined hands to develop a long range plan, they find subtle extra strength in the plan, are less likely to be filled with doubt.

It is the business of management to take risks; but management is constantly threatened with the greatest hazard of all: inflexibility to change. LRP helps in selecting the right risks—perhaps in taking on even greater risks.

Like an army in the field, a corporation should move ahead on coordinated fronts, should not allow one branch to get so far ahead of the others that it cannot be supported by them.

The original construction of a long range plan is difficult, but later revisions are comparatively simple.

As background for the whole LRP effort, a company should understand the S Shaped curve of growth. This curve dictates that in the early stages of an industry's development, or of a company's growth, progress is slow; in the second and prolonged stage there is an accelerating rise; in the mature stage, there is a deceleration leading to a final tapering off to the ultimate growth level. Information is available in management literature on ways to determine the growth stage of an industry or company.

What LRP Is

So far we have talked about long range planning as though everyone knows what it is. Let us set up a definition—"Long range planning is a continuing integration of management aims for utilizing the tangible and intangible assets of a company, in an endeavor to assure continuity, growth and profits."

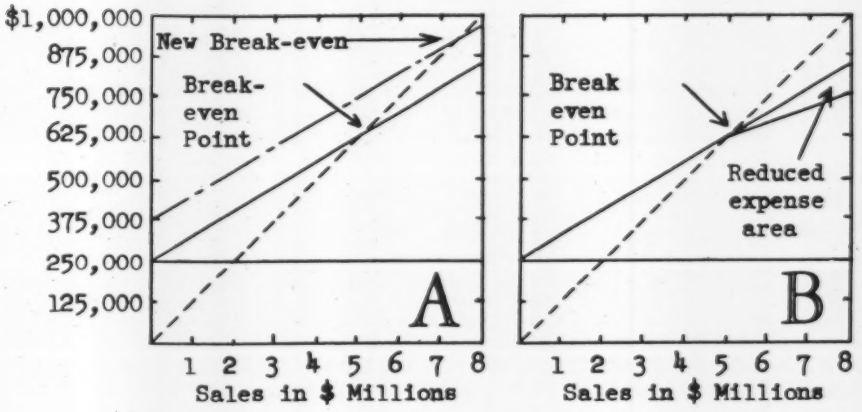
Conversely, the plan will endeavor to minimize the weaknesses and liabilities of a company. Since management is a dynamic process, it must take into account the executive capacities before it can suggest how fast the company should grow and what factors are needed to maintain balanced growth. These factors are likely to be organization, personnel, sales, manufacturing, capital financing and innovation. Planning will likely yield, not one goal, but a number of goals which are all facets of the same major problem.

The plan will provide for inflation, cyclical downswings, unusual contingencies, and for annual revisions within the five or ten year period contemplated.

The decision to go ahead with long range planning forces other decisions, such as what factors are significant, and whether present policies and practices will help or hinder the program. For example, management must decide whether it will sell what it can make, or will make what it can sell.

There are three groups of factors which need be taken into account. The first group consists of uncontrollable situations and trends which must be recognized and evaluated. The second group includes semi-controllable factors such as share of the present market, labor turnover, present labor efficiency, costs, pricing policies. In the third group are the definitely controllable items such as the possibility of entering new markets, the choice of distribution methods, locations of plants and warehouses, programs of research and development.

The use of break-even charts such as those illustrated will prove of great value to the long range planning committee. Such charts may suggest, for example, the expense implications if a company increases its investment in production facilities (A) or the possible effect of a determined effort to reduce expenses (B). The overall viewpoints developed by such charts can be helpful in guiding a committee to correct decisions.



A suggests that a proposed increase in capitalization might result in a 50% rise in fixed expense, necessitate increase in sales from $5,000,000 to over $7,000,000 to reach the break-even point. Is this goal feasible, and the capital addition justified?
B raises the question whether variable expenses could not be decreased after the present break-even point, to yield an additional $50,000 profit, if sales can be increased to $7,000,000 without increase in capitalization and fixed expense.

Why Do LRP?

LRP has well been described as profit insurance. It considers profit not only in terms of the actual dollars but also as a percentage return on investment. The magazine Nation's Business for November 1957 reported a study of 400 companies covering an 18 year period. The study revealed that a large percentage of the successful and profitable corporations used LRP; that a low percentage of the less profitable ones did so.

A second reason for LRP is that the plan will recognize existing limitations. Typical of limitations would be large capital investment in special purpose equipment; deteriorating family ownership; inadequate executive talent; or unfortunate geographic location of a plant.

Companies which have set up LRP are advantaged in seeking new financing; in making acquisitions of smaller organizations; or in merging with other companies through an exchange of stock.

The one big reason for LRP has been stated in the opening paragraph of this report: competitive advantage. Any company which has set up a long range plan knows where it is going. It can make moves and decisions to fit into that plan and so avoid costly mistakes or dissipation of effort.

10 Heart-breaking Questions

1. Are the organization and its policies, sound, and adaptable to change?
2. Is the company free from serious handicaps so that it is ready for LRP?
3. Has the company made progress in its marketing program?
4. Are manufacturing facilities competitive, cost-wise?
5. Among key-men under 50, are there varied skills sufficient for future needs?
6. Is employee morale high?
7. Is there free communication among all levels?
8. Are costing and budgeting on a sound basis?
9. Is present capital financing economical, and far-sighted?
10. Has the Board of Directors followed a wise plow-back policy?

Fact Gathering

This stage is laborious. Considerable digging is necessary to assemble the required quantitative and qualitative information. The search will record historical volumes and costs of products; manufacturing know-how; the productivity of past markets; financial resources; personnel available; standards in effect; methods of planning and control. Those gathering this information will be disinterested in the adequacy or results; they will only be concerned with reporting the facts.

The real interrelationships among key men will be set down in chart form. Sometimes these relationships are considerably at variance with what the organization chart shows.

As to marketing, the study will be interested in trends of gross profit by products, by markets, by type of customers; it will analyze the product mix; it will utilize the findings of market research to consider trends in consumer acceptance.

The study will be vitally interested in the company's growth as contrasted with the growth of competitors. Sometimes trade associations make available sales volume and profit figures for the principal companies in an industry. Where such figures exist it is feasible to determine the position of a given company by use of the following formula:

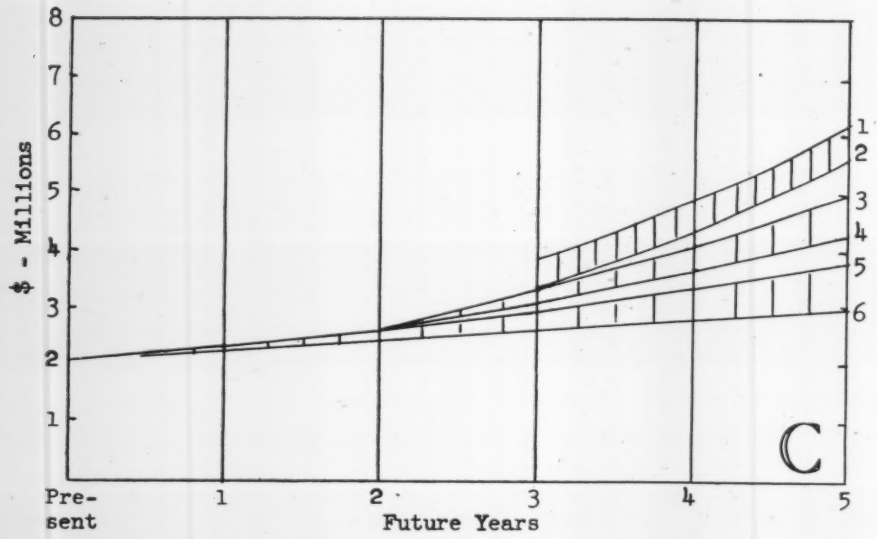
$$\frac{\frac{\$\ \textit{Company profit}}{\$\ \textit{Industry profit}}}{\frac{\$\ \textit{Company sales}}{\$\ \textit{Industry sales}}}$$

If this formula yields an index of 1.00, it means that the company is keeping pace with its industry. A figure larger than 1.00 means that it is doing better than the average in the industry: its profits as a percentage are exceeding its sales as a percentage.

The fact gathering study will be concerned with changing economic trends such as population, births, average age, migrations, styles, education, communication, transportation, luxuries and other economic influences.

The LRP Team

The facts gathered should be placed in the hands of a long range planning committee. In the process of gathering these facts, important present problems may come to light. These problems should be cleaned up as quickly as possible so that they will not provide a

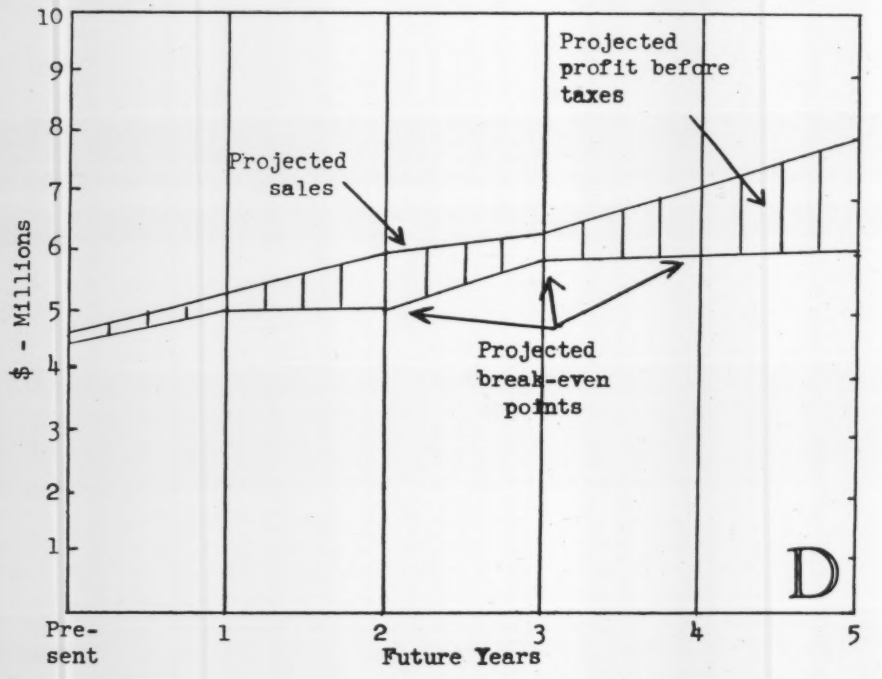


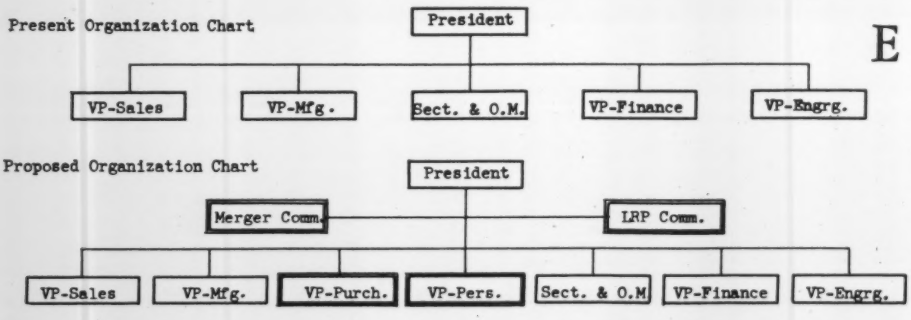
1-2 By acquisition of new company
2-3 Product X being developed by Research and Development Dept.
3-4 Product Y being developed by Research and Development Dept.
4-5 Use of field sales promotion specialists
5-6 Stepped-up advertising

Any company setting up a long range plan will probably want to consider the following aspects of the problem:

1. Fact gathering
2. The LRP team
3. The program
4. The timetable
5. Application of the plan

Let us consider each of these aspects.





Charts C and D on this page show projections of sales. The first chart (C) breaks down projected total sales into its various elements; in essence it establishes goals for those elements. The second chart (D) takes into account the necessary capital increases which the plan demands, and relates projected sales to projected break-even points.

drag on the execution of the final plan.

The planning proper is obviously not a job for one man. Few individuals have the breadth of experience and vision to do the whole task. Even if some gifted executive does have this ability, the ultimate application of the plan requires the involvement of many other executives who must be convinced as to its desirability. As John Dewey has observed, "People believe to the extent that they participate."

The Program

Long range planning is more than a polyglot of forecasting, budgeting, market research, etc. although it uses these devices as tools. As a check on its results, it may work back from planned profits to determine what implications are indicated to yield the planned profits, and how these implications tie in with the plan which has been developed.

The committee must ask itself what is the right business for the company, based on all the information which it can bring together. It must attempt to state what it wants to achieve as a corporation and what chance it has for survival and growth. The objectives it sets must be both sound and attainable. They must represent balanced expansion of the various sections of the business so that each one can reinforce the others. The objectives must take into account the availability of executive personnel to carry them out.

The committee should be able to indicate the effect of its changes on one or more future organization charts such as here shown (E). Conversely the committee should be able to identify both the products, and the key personnel which will be adversely affected as the new plan unfolds. Provisions should be made for obsolescence of products, plant, equipment and people.

Time Table

It is not sufficient to set objectives; the committee must tell who is to do what, *when*. The main steps as well as the sub-steps should be scheduled, per-

Long Range Plan

F

As steps are decided under each function, record them separately and assign a "step number." Enter this number under the appropriate month when it should be completed. When completed, encircle it in green; if it is superseded, encircle it in red.

FUNCTION	1 9 6 _	1 9 6 _	1 9 6 _	1 9 6 _
	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
Finance				
Manufacturing				
Office				
Personnel				
Purchasing				

haps on a monthly time table. A five year plan for a sales department, such as shown, needs further to be detailed to reveal both the responsibility for execution and the time when each part should be completed. Obviously such a time table should be realistic, but also designed to incite the participants to high effort.

Application

The committee or the executive head of the organization should maintain a master control chart like that illustrated. By means of this chart, supported by details of steps to be taken, time to be executed and responsibilities, he can determine whether the plan is unfolding as hoped. If financing is involved, the very presentation of such a chart to lending officers would facilitate the loan.

Such a chart is of interest to the original planning committee, which can study it and make changes if necessary. It is better that these changes be in the time table rather than in the steps, but both are possible. Moreover the committee should avowedly make annual changes in the whole plan based on the experience of each year.

FIVE YEAR PLAN FOR SALES DEPARTMENT

Factor	Present Status	Proposed Changes
Sales Territories	Boston, N. Y., Chi., Cinci.	Add Atlanta and Dallas
Division Managers	4	6
Salesmen	16	28
Dealers	210	400
Selection	Interview	Add aptitude tests and scored application blank
Training	Semi-annual sales conventions; sales manual	One annual convention Add one week division retraining program
Compensation	Incentive plan	Retain. Add merchandizing contest
Control	Weekly sales report	Add quarterly planned calls and budgeted sales
Market research	None	Hire consulting firm for this
Advertising & Sales Promotion Budget	$80,000 per year	$90,000 per year

The title of this report is The Common Sense of Long Range Planning. It would seem that it would be common sense to:

1. *Start from an honest analysis of where the company now is.*
2. *Get participation from key men.*
3. *Base the whole plan on marketing, that is, on the consumer.*
4. *Set up a five year plan with subdivisions, and assign responsibilities.*
5. *Set up a time table and make every effort to enforce it.*
6. *Call upon the experience of reputable specialists to help organize and coordinate the whole plan.* ■

The future of our great nation is best assured in the hands of a well and broadly educated citizenry who can provide the skills, the knowledge, and the vision to follow our common ideals. The representatives of higher education and business enterprise should continue to work together—indeed they must *work together and render mutual support—in behalf of education's contribution to our society.*

Dr. Gaylord P. Harnwell
"The Role of Education in Developing Management Know-how."

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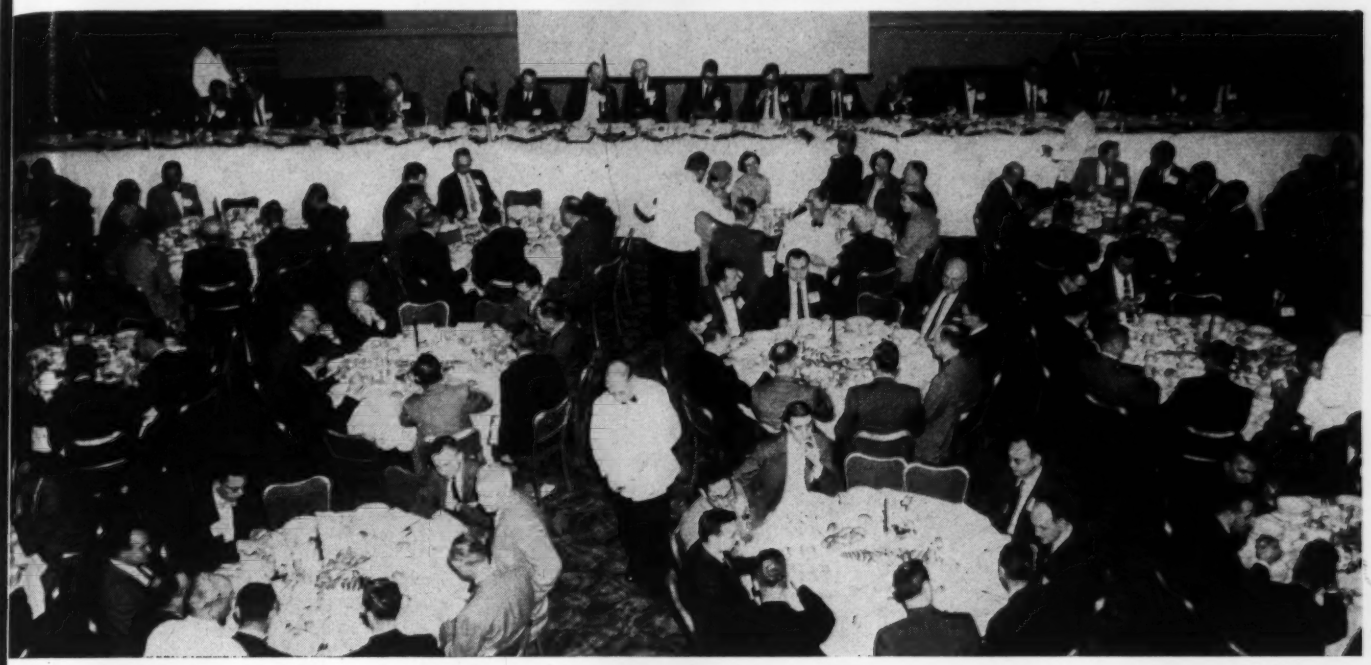

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THE GILBRETH MEDAL

for 1959

In the field of original research your work has produced an important body of new technical knowledge relating to the development of pre-determined motion times and their use in the measurement of both production and clerical work. Through your recently published book, Basic Motion Timestudy, which you co-authored with Ralph Presgrave you have made available to all practitioners your contribution to the advancement of pre-determined motion time techniques.

As a frequent speaker at professional and technical meetings in the United States and Canada, and as a practicing consultant to industry, business and government in both countries, you have contributed significantly to the important tasks of developing a broad general understanding of industrial engineering principles and of promoting the use of better techniques.

For these reasons, and for following the best traditions of the Gilbreths, the Society for Advancement of Management takes pride and pleasure in presenting this Award.

Phil Carroll, President.

April 23, 1959

GERALD B. BAILEY — PHIL CARROLL

ARTHUR ARLINGTON RATH

is hereby awarded the

S.A.M INDUSTRIAL INCENTIVE AWARD FOR 1959

For your untiring efforts to disseminate throughout industry the principles underlying reward and encouragement for work well done;

For your original contributions to the development of philosophy and practices in the field of financial incentives, and your milestone contribution in developing the first practical application of a previously theoretical concept of work measurement and wage incentives: the Bedaux Plan;

For your original concept and development of the first labor-control analysis sheet ever used in industry;

And in recognition of a lifetime of service and contribution to the art and science of industrial motivation,

The SOCIETY FOR ADVANCEMENT OF MANAGEMENT takes great pleasure in presenting to you its INDUSTRIAL INCENTIVE AWARD for 1959.

Phil Carroll, President.

April 23, 1959

ARTHUR A. RATH — PHIL CARROLL

1959 S.A.M

MATERIAL HANDLING AWARD

is hereby awarded to

HERBERT H. HALL

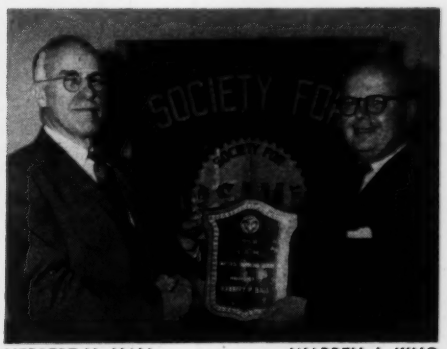
Through your pioneering work in Material Handling you have justly earned the reputation as one of industry's foremost spokesmen in this field. Your writings and original research work in container standardization represent an outstanding contribution. In this sector of the material handling field, your concepts have become standards for intra and interplant shipments.

Your willingness to share your knowledge and experience with others is well known. It is exemplified by your contributions to the Material Handling Handbook, the many articles published under your name in periodicals, and your presentations at industry and business gatherings.

In all, Herbert H. Hall, by your personal example, your engineering skill, your writings, and your creative thinking and research, you richly deserve the 1959 Annual Material Handling Award of The Society for Advancement of Management.

Phil Carroll, President.

April 23, 1959



HERBERT H. HALL — WARREN J. KING